NCCI Holdings, Inc.

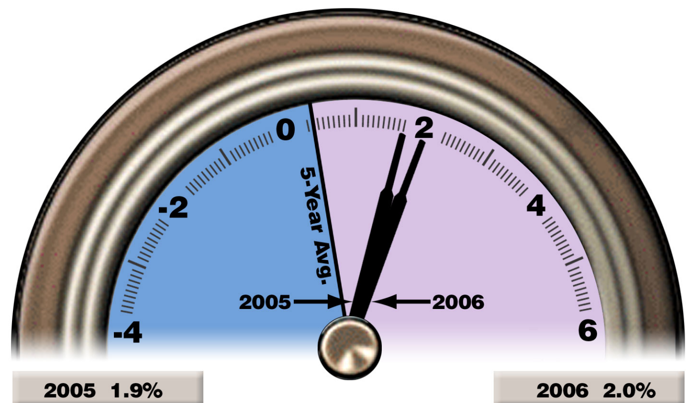
Gauging the Economy

Vol. 3 • 2005

Gauging Current Conditions:
The Economic Outlook and Its Impact on Workers Compensation

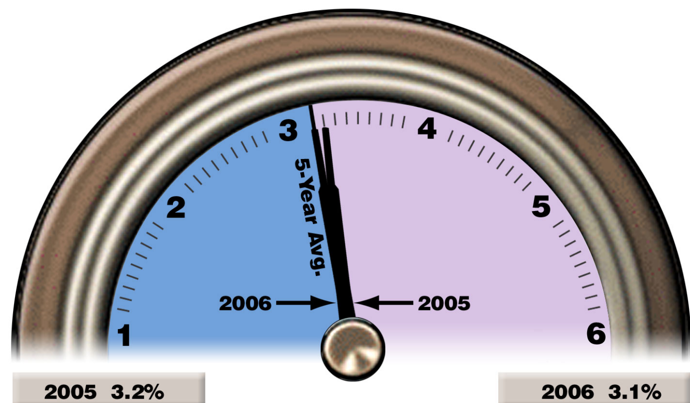
The gauges below indicate the economic outlook for the current year and for 2006 for factors that typically impact workers compensation. Each gauge also provides some context for the outlook, relative to a historical average of the previous five years.

Improved Job Growth May Limit Extent of Further Frequency Declines
Job growth has picked up in recent months, and prospects are for continued healthy gains for the balance of this year and 2006. The addition of substantial numbers of new/less experienced workers to payrolls suggests some slowing in the decline in claim frequency—a decline that has been under way since the early 1990s.



Private Sector Employment Growth Much Improved

Continued Wage Gains Will Likely Push Up Indemnity Severity
Wage gains are expected to average about 3% this year and next, increases consistent with the economy's ongoing expansion. Since indemnity benefits are tied to wage growth in most states, the rise in wages suggests further increases in indemnity severity.



Average Weekly Wages on the Rise

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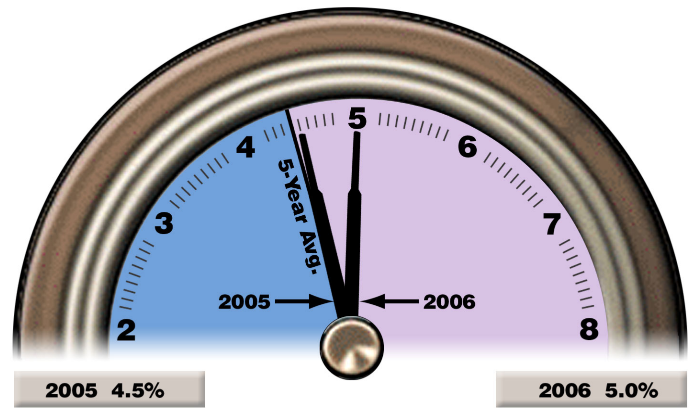
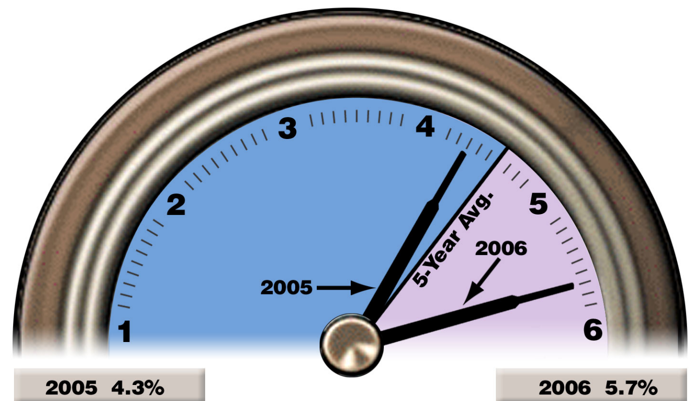
Accelerating Price Increases for Medical Care Imply Further Increases in Medical Severity
Price increases for medical care continue to mount, shown in the chart above in terms of the annual percent change in the medical care component of the consumer price index. Those increases are likely to be reflected in additional upward pressure on medical severity.



Medical Care Price Increases Continuing

Firming Interest Rates in 2006 Suggest Better News on Investment Income
Longer-term yields (such as that on seven-year T-notes shown in the chart) have been little changed so far this year, even as the Fed has repeatedly boosted short-term rates. For P&C carriers, prospects for higher yields in 2006 suggest a pickup in investment income. Provided the economy, and corporate earnings, continue to improve, the rise in rates is unlikely to have an unsettling effect on the stock market and on carriers' realized capital gains. (The average maturity of Treasury securities held by P&C carriers is roughly seven years.)



Interest Rates Rising

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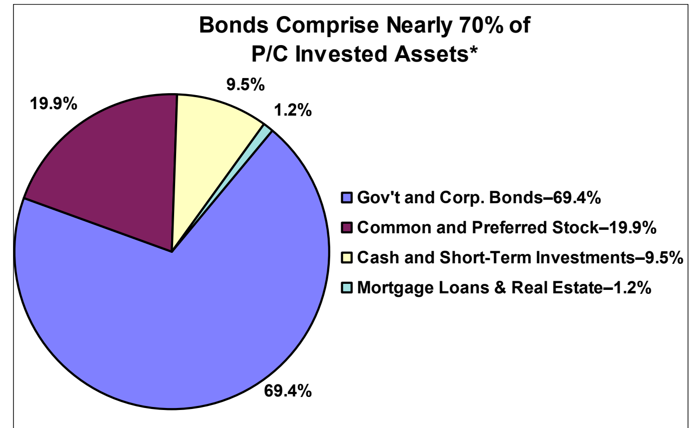
Behind the Gauges

Financial Markets

The following charts, and the accompanying "Implications" article, focus on financial market conditions and their implications for the P&C industry.

Portfolio Composition of Invested Assets

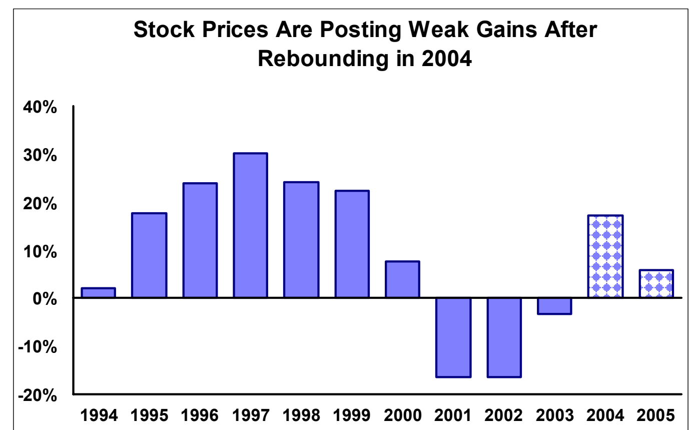
- As of year-end 2003, private carriers had nearly $925 billion in invested assets, 70% of which were in fixed-income securities (about half in tax-exempts), and 20% in common and preferred stocks (about two-thirds in "unaffiliated" common stocks). Most of the balance was in cash and other short-term investments.



* As of Dec. 31, 2003
Source: A.M. Best Aggregates and Averages, 2004 Edition

Stock Market

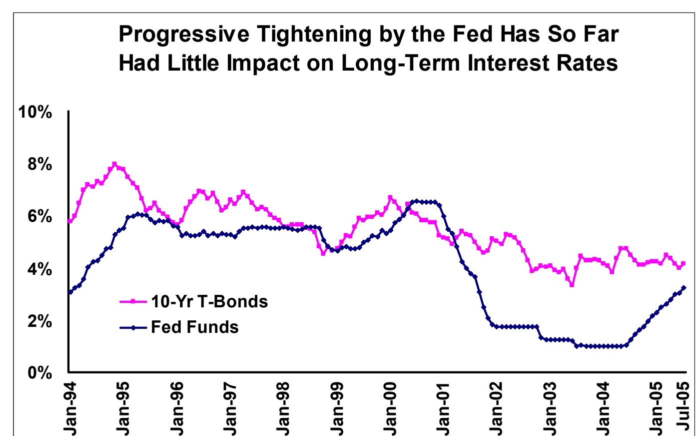
- The stock market's performance for the year through July has been lackluster, with stock prices up 5.8% from a year ago (measured by the S&P 500 stock price index). This result follows a 17% bounce back in stock prices from the market's decline in the 2001–2003 period.
- Stock prices are likely being affected by uncertainties about the prospective strength of the economy (and hence, earnings), related in part to concerns about the effect of oil price increases on both consumer spending and inflation and the resulting implications for Federal Reserve policy.



Annual Percent Change in S&P500 Stock Price Index
Source: Standard & Poors; 2005 is Average Jan–Jul vs. same period in 2004

Interest Rates

- The Fed's progressive policy tightening continued in August with the federal funds interest rate rising for the 10th time since June 2004, to 3.5% The federal funds rate is the rate that banks charge each other for overnight borrowing and is the interest rate that is most under the Fed's direct control.
- Typically, long-term rates (which are largely market-determined) follow suit. That has not occurred so far, as the yield on 10-year Treasury bonds has been little changed (see the *Implications* article for a discussion on this).



Percent
Source: Federal Reserve Board, economy.com

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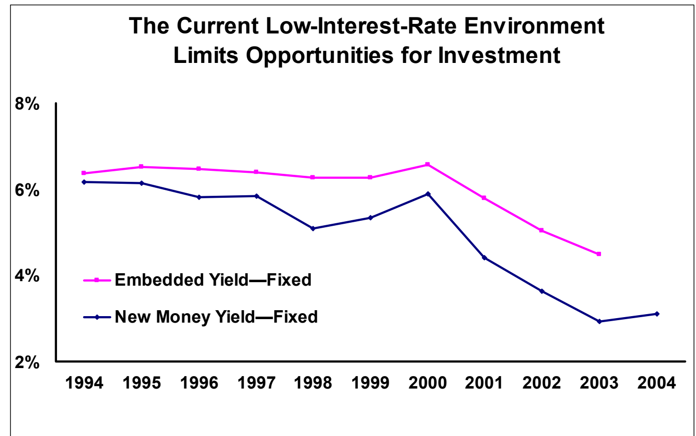
New vs. Embedded Yields

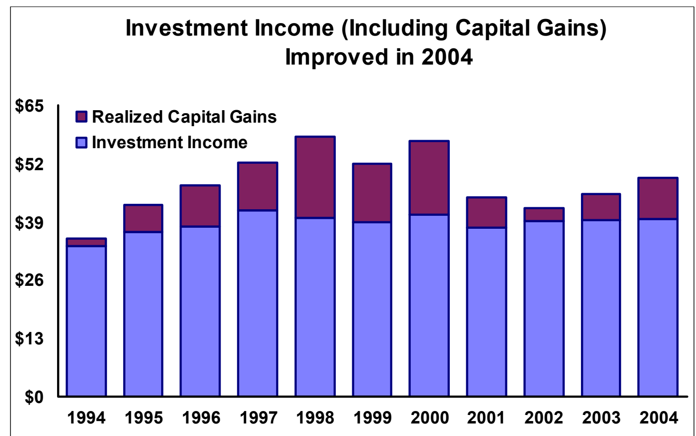
- Reflective of these interest rate trends, especially at the long end of the rate spectrum, “new money” yields available to P&C carriers (calculated based on the portfolio distribution of fixed-income assets among private carriers) declined between 2000 and 2003, placing ongoing downward pressure on the embedded yields in their fixed-income portfolios.
- New money yields stabilized in 2004. This suggests that the slide in embedded yields may have also eased. Indeed, that is likely the case; preliminary data suggests an increase in investment income in 2004 (see next chart).



New Money and Embedded Yields on Fixed-Income Assets, Private Carriers, Percent
Embedded Yield is investment income divided by invested assets for fixed-income assets only New Money Yield is portfolio-weighted prevailing market yields for fixed-income assets only Source: A.M. Best Aggregates & Averages, Highline, NCCI

Components of P&C Investment Returns

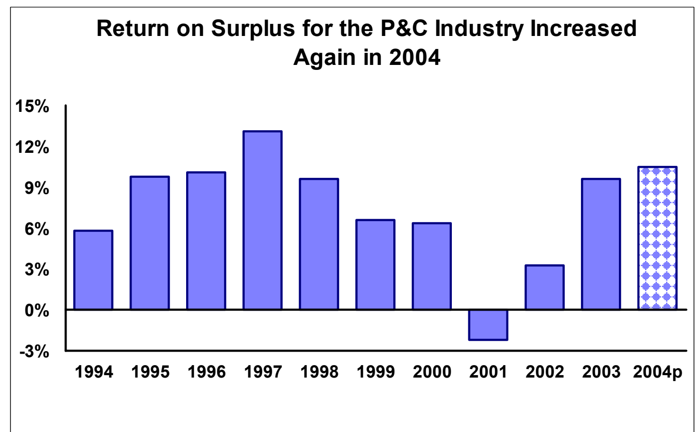
- The majority of investment returns consists of investment income, which includes mostly interest as well as dividend income. That aggregate rose slightly in 2004, but remains below its 1997 high (reflective of the declines in new money and embedded yields).
- The more volatile component of investment returns is realized capital gains. Such gains soared during the stock market’s period of “irrational exuberance,” and weakened markedly thereafter. The stock market’s good performance in 2004 underlies the increase in realized gains seen then.



P/C Private Carriers, $ Billions
Source: A.M. Best Aggregates and Averages, various years

Return on Surplus

- The P&C industry’s return on surplus (ROS) showed further improvement in 2004, reflecting the better news on investment income as well as improved underwriting results (with the calendar year combined ratio—losses and expenses to premium—declining to 98 from 100 in 2003).
- Last year’s ROS was close to the prior high return seen in 1997. However, in that year, underwriting results were somewhat weaker (combined ratio of 102), while investment income was stronger, due to the surging stock market.



Annual After-Tax Return on Surplus—Private Carriers
Note: After-tax return on average surplus, including realized capital gains
p = Preliminary
Source:1994–2003, A.M. Best Aggregates & Averages; 2004p After-Tax Net Income, ISO;
2004p Surplus is 2003 A.M. Best Aggregates & Averages Private Carrier Surplus + 2004 ISO contributions to surplus

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Implications

It's a conundrum—long-term yields remain low as the Fed continues to drive short-term rates higher. Here, we take a closer look at recent bond market developments, prospects and implications for the P&C industry and workers compensation.

Webster's Dictionary defines a conundrum as a "question or problem having only a conjectural answer." Federal Reserve Chairman Alan Greenspan used that term in discussing recent declines in long-term interest rates—declines that have been occurring in the face of increasing inflationary concerns from rising oil prices, ongoing economic expansion, and 10 increases in the federal funds interest rate since June 2004—all factors that would have been expected to have pushed long-term yields higher.

Prospects for interest rates are of special interest to P&C insurers, since roughly 70% of the industry's invested assets are in fixed-income securities (see chart in "Behind the Gauges" section)—and investment income is a key factor affecting the industry's overall return on surplus. The analysis that follows takes a close look at the key factors that have been and are likely to affect long-term yields in the near term and the implications for the P&C industry.

It's Not Supposed to Work This Way

Changes in Federal Reserve monetary policy are typically effected through changes in the federal funds interest rate—the rate banks charge each other for overnight loans. Increases (or decreases) in the funds rate represent important signals to financial markets, and longer-term rates typically follow suit. That certainly was the case in the late 1980's as well as in the mid-1990s, when the Fed raised the funds interest rate to slow the economy and long-term rates also moved higher (see Exhibit A).

That pattern has clearly not occurred in the current period—the Fed has ratcheted up the funds rate 10 times since June 2004, but longer-term yields have not responded. Indeed, the average yield on 10-year treasuries in July is actually down 32 basis points from its level a year earlier (an average of 4.18% in July 2005 versus 4.50% in July 2004).

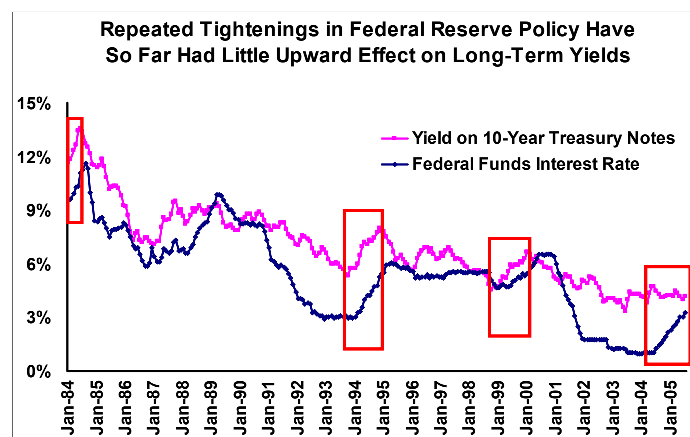
It must be a "conundrum" for the "experts" too. Back in Second Quarter 2004, when 10-year treasuries were yielding 4.61%, the consensus of the "Blue Chip" panel of professional forecasters was for those rates to average 5.5% for Second Quarter 2005. Instead, the average for the second quarter was 4.16%.

No single development appears to provide a fully satisfying explanation for this anomalous situation. However, there are a number of factors relating to both the demand and supply for long-term securities that, taken together, are suggestive as to why longer-term rates have remained subdued. A discussion of these follows.

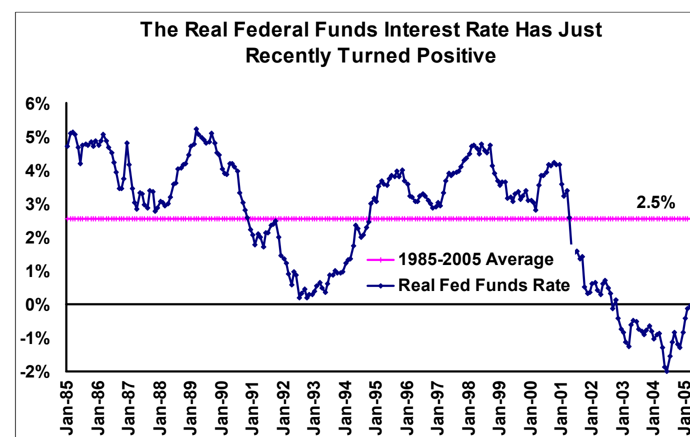
Key Role of Foreign Central Banks

On the demand side, one of the major factors that is helping to hold down long-term yields is the willingness of foreign "official" institutions to fund the massive US trade deficit by buying ever-increasing amounts of Treasury securities.[1]

Here is some background. Beginning in early 2001, the Federal Reserve embarked on a period of major easing as the US economy began to weaken from the bursting of the dot-com bubble, the effect of September 11, and a general softening in demand. The Fed's actions pushed the real federal funds interest rate into negative territory and contributed to marked downward pressure on real long-term rates to far below their average since the mid-1980s (see Exhibits B and C).



Percent
Source: Federal Reserve Board, economy.com



(Nominal Rate Less Percent Change From Year-Ago in PCE Price Index)
Source: Federal Reserve Board, economy.com

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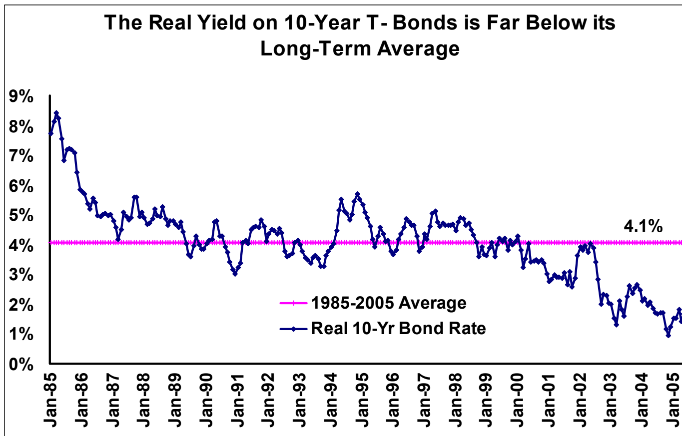
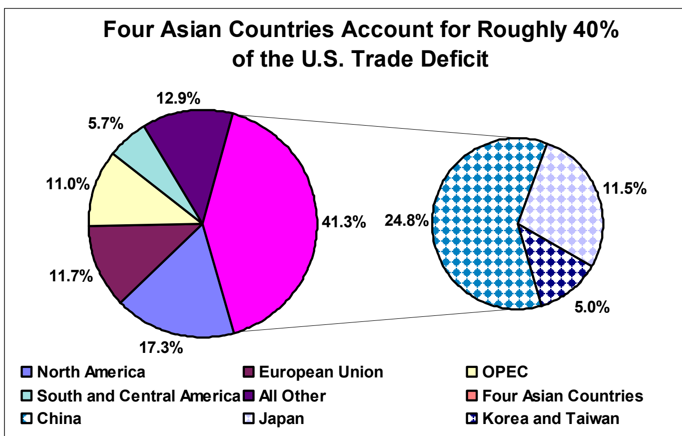


(Nominal Yield Less Percent Change From Year-Ago in PCE Price Index)
Source: Federal Reserve Board, economy.com

These low real rates resulted in a dramatic increase in asset values, especially for residential real estate, and provided US homeowners with an enormous opportunity to convert their much-increased equity into spendable dollars. They did so big time—mortgage originations (including refinancings) more than tripled, from $1.0 trillion in 2000 to $3.5 trillion in 2003.

The asset-based expansion fueled increased demand for all goods and services, including imports. The US trade deficit mushroomed—from $436 billion in 2000 to $635 billion in 2004. The US economy became an extension of the domestic market for many nations, especially for China, Japan, Taiwan and South Korea, whose net exports accounted for roughly 40% of the US trade deficit last year (see Exhibit D). A growing (and import-buying) US economy became a critical element in maintaining a healthy "domestic" economy abroad. In short, the world economies became "hooked" on producing goods to satisfy the demand accompanying continued US economic growth.

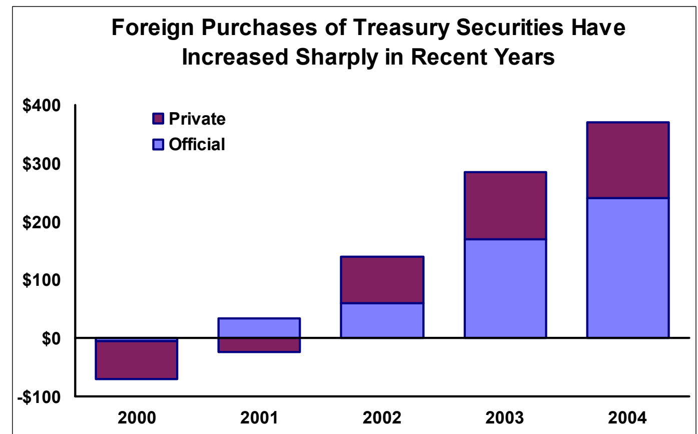


Total Merchandise Trade Deficit in 2004 = $653 Billion
Source: U.S. Census Bureau

In order to sustain this arrangement, foreign central banks became major purchasers of Treasury securities. As shown in Exhibit E, "official" purchases of Treasury securities have risen sharply. In 2004, they totaled $240 billion, more than seven times the amount purchased in 2001. By recycling the flood of surplus dollars, these institutions provided liquidity to US financial markets (fostering continued low yields) and kept the value of their currencies from appreciating on foreign exchange markets.

Relative Attractiveness of US Yields

Another factor that may be boosting the demand for US securities, particularly among private investors, is the relative attractiveness of US yields. That's especially so in Japan, where rates on 10-year government bonds are roughly 1.3% as of this writing. Even considering higher transaction costs and the risk of dollar depreciation, it appears that Japanese investors believe that it is "worth it" to place their funds in US longer-term securities, where real yields are at least positive. Specifically, the perceived "low" yield of 4.13% on 10-year US treasuries must seem remarkably attractive relative to the 1.3% yield on Japanese government bonds of comparable maturity. Indeed, Exhibit E indicates that private foreign investors have also added large amounts of US treasuries to their portfolios.



Net Purchases, Billions of Dollar
Source: Flow of Funds Accounts of the United States, Board of Governors of the Federal Reserve System

Moreover, foreign purchases of fixed-income securities have extended well beyond safe-haven treasuries. Net purchases of corporate bonds averaged roughly $340 billion in the second half of 2004 (at a seasonally adjusted annual rate). That compares to an average of $212 billion in the first half and $151 billion for all of 2002. Foreign demand for corporate bonds may be one reason the spread between yields on 10-year Treasury and seasoned AAA corporate bonds has narrowed markedly, to just 0.9% in July versus nearly 2.4% at the beginning of 2003.

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Need to Match Maturities and Payouts
Demographics may also be playing a role in boosting the demand for long-term securities. Some writers have suggested that pension funds and life insurers are under-invested in longer-term fixed income securities, given the increasing payouts likely from the aging of the baby boom generation. The "certain" cash flow from such investments would act as a safety cushion relative to investment strategies focusing on shorter-term (and potentially higher but more risky) returns, e.g., from derivative transactions or the stock market.

The Economist, for example, cites a recent analysis that argues that regulatory and accounting pressures are causing a shift in pension funds away from asset management to liability management, "almost robotically" matching assets to liabilities. According to the article, this development is one reason for the recent shift into bonds by private pension funds in both the United States and the United Kingdom.

Supply Constraints
The Treasury's decision to halt the sale of 30-year bonds in October 2001 probably created some tightness in the long-term markets, although the increasing flow of red-ink from the federal budget deficit suggests that the Treasury bond markets are not especially supply-constrained. The supply of long-term bonds will be increasing soon, however, based on the Treasury Department's announcement that it is reintroducing the 30-year bond in February 2006. Interestingly, the initial announcement of a potential increase in the supply of 30-year bonds caused prices to drop and the yield on the old 30-year bond to spike higher, increasing in a matter of minutes to 4.67% from around 4.5%.

Prospects for Long-Term Yields and Implications for the P&C Industry
The previous discussion suggests that there are a myriad of forces affecting long-term yields—some rooted in the domestic economy and some reflecting developments abroad.

Forecasting interest rate changes under such circumstances is challenging. That's especially so when it comes to opining about changes in economic policies in other nations and the timing of such changes. For example, China's announcement that it would let its currency float in a tight band against a basket of foreign currencies (including the dollar) caught financial markets by surprise. So far the yuan has shown but a small rise versus the dollar, while long-term yields on 10-year T-bonds have edged up slightly (by less than 10 basis points as of this writing).

Domestically, the consensus economic outlook suggests that the Federal Reserve will continue along its tightening path, as the expansion appears to be holding its own at the same time that inflationary pressures are intensifying. Employment gains, for example, have averaged a respectable 191,000 a month so far this year (through July), while inflation remains in check. And the Fed's often-cited inflation measure—the personal consumption expenditure price index—has increased to 2.6% in the first six months of 2005 (versus the same period in 2004).

Sharply higher oil prices have so far not affected "core" measures of inflation (e.g., the consumer price index excluding food and energy). However, if oil prices remain at or close to current levels, some flow-through to other economic sectors is likely. The resulting rise in inflationary expectations is likely to push up long-term yields.

Taken together, these various factors suggest that both short-term and longer-term rates will likely be moving higher in the months ahead, with the yield curve assuming a more normal (steeper) relationship that is typically seen during the periods of sustained economic growth.[2]

How might the P&C industry in general, and workers compensation in particular, be affected by these developments?

- If there are higher yields that result in a boost to returns on newly invested funds and contribute to a gradual increase in investment income from fixed-income assets, the impact of higher long-term rates on the stock market (and hence, on realized capital gains) is far less certain. However, yields typically rise as expansions deepen. If the economy and earnings continue to do well, then stock prices should likely move up in sync.
- To the extent that the dollar weakens further against the yuan and other formerly dollar-pegged currencies, that might help improve the competitiveness of US exports abroad as well as the competitiveness of domestic production versus import-competing products here at home. Employment in manufacturing industries may improve somewhat as a result, increasing exposure in that more hazardous sector. However, the driving force will be changes in exchange rates, not changes in interest rates.

[2] A contrary interpretation, however, is that long-term yields will remain at or decline from current levels as the bond markets anticipate a drop-off in economic activity in response to tightening monetary policy. There is some evidence in Exhibit A of this happening in the past.

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- Workers compensation exposure to the construction sector is likely to be affected if higher long-term rates begin to take a bite out of the housing market. Nationally, construction employment is up 4% so far this year, following a 3.4% rise in 2004. Those increases are well above gains in overall employment, which averaged 1% last year and 1.3% so far this year.
- Finally, to the extent that investment income increases in line with rising interest rates and continued economic expansion, that is likely to result in a softer underwriting environment than the harder markets of the past several years.[3]

These various effects assume that the transition to a more normal interest rate environment will be orderly. Such a transition is by no means assured, however. Internationally, there are substantial risks of increasing trade tensions with China (although the recently announced end to the explicit pegging of the yuan to the dollar may have helped in that regard). There is also ongoing concern about the speculative threat posed by the huge buildup of overseas dollar holdings. Here at home, historically low real rates have fueled a white-hot housing market. That market could quickly cool if interest rates spike higher. The consensus forecast is to assume continued moderate economic growth in the United States, an easing of oil prices, and gradually rising interest rates—both at the long and short ends of the interest rate spectrum.

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[3] NCCI research, presented at the 2005 ***Annual Issues Symposium,*** indicates that insurance markets tend to harden in response to declines in interest rates and investment income (and to soften as interest rates and investment income rise). As with changes in the estimated equity risk premium, the impact on bureau rates is ambiguous; for example, increases in interest rates will produce offsetting increases in both projected investment income and estimates of the industry's cost of capital.