

# IT IS TIME FOR OPERATION TWIST II:

## Fuqua in the News

### Billions in Interest Savings — Long-Term Rates Will Plummet

By **DR. CAMPBELL R. HARVEY**

The economy was struggling to emerge from recession. Short-term interest rates had fallen below 3%. The dollar was taking a beating. Policy makers were frustrated by the long-term interest rates remaining high.

Sound familiar? This was the scenario, more than 30 years ago, in 1961. The monetary strategy mounted was called Operation Twist. The Federal Reserve purchased long-term bonds and sold short-maturity securities. This reduced the supply of the long-term bonds and thereby raised their prices. Higher prices for the long-term bonds mean lower yields. The opposite happened with the short-term securities.

Operation Twist was designed to 'twist' the yield curve (the yield difference between long-term and short-term bonds). A critical ingredient for recovery is the long-term rate. Capital investment is tied to long-term rates. Fixed-mortgage rates and consumer credit are also linked to long-term rates.

The policy assumption that lower short-term rates will spur economic growth has been proven incorrect. Short-term rates have reached a 29 year low. However, we continue to lose manufacturing jobs, the leading indicators are flat and consumer confidence has plunged over the summer.

We must abandon the obsession with short-term rates and focus on the entire yield curve. A necessary condition for a sustained economic recovery is a 100 basis point (1%) reduction in the long-term rates. It is time to mount Operation Twist II.

If the yield curve does not change shape over the next year, this new strategy would lead to direct savings of \$12 billion a year due to lower interest costs.

However, the yield curve will change shape. At the short term, an extra \$150 billion in Treasury bills are being offered. Given the size of the market (\$700 billion projected next year) and given the subscription interest in recent auctions, the increased supply of bills will probably have a small upward impact on short-term rates.

More dramatic effects will occur at the longer-term portion of the curve. Supply of longer-term issues would be reduced by up to 50%. This would surely increase prices -- and lower rates, perhaps sharply. The net effect, slightly higher short-term rates and much lower long-term rates, will be negligible on the cost of financing the government debt. Hence, \$12 billion is a reasonable estimate of the direct savings involved in restructuring the maturity of the new Federal debt.

#### Little or no downside risk

One potential risk of short-maturity financing is the roll-over risk. That is, short-maturity instruments come due and you must go back into the market and re-finance, say next year. The risk exposure is to increases in the short-term rates.

However, this argument is flawed for two reasons. First, short-term rates are 430 basis points below the longest-term rate. It is unlikely that short-rates would shoot up by 4% over the next year. More importantly, even if the short-term rates go up, you can always go back to the old maturity structure. That is, financing with short-term instruments allows you the

offerings. The committee suggested that "any material change at this time runs the risk of being politically motivated."

Given that 26 months of recession is a political issue, the Committee is correct. However, actions that reduce the cost of financing the government debt and provide the conditions for a recovery should foster bipartisan support.

The most important objection came in the form of a letter from Chicago Board of Trade President Thomas R. Donovan to House Ways and Means Chairperson Dan Rostenkowski (D. Ill.). Donovan argued that the action would "cripple the Chicago Board of Trade." The CBOT is the home of the Treasury bond futures contract which accounts for about 75% of the exchange's business.

There are two problems regarding Mr. Donovan's objection. First, if he is worried about delivery problems, the CBOT T-bond contract calls for delivery of a 15--20 year bond. It is conceivable that the Treasury could 'zero out' the 30-year bond for two or three years and there would still be lots of bonds to deliver. However, the proposals (and my proposal) do not 'zero out' any particular issue. Liquidity would be maintained.

Second, and most importantly, is it reasonable for the government to subsidize any securities exchange at the cost of the whole economy? Long-term rates must come down to provide the conditions for a sustained recovery. Is it really so important that the CBOT loses some business as a result?

#### The role of long-term rates in recovery

In the last three recessions, long-term rates dropped quickly to provide the con-

-- are the essential ingredient for capital investment. New investment projects' returns are compared to long-term interest rates. The current Treasury bill rate is of little relevance in capital formation because projects are expected to last more than three months.

The overwhelming indirect effect of lower long-term rates will be to spur business formation. Consumers will also benefit in that consumer loan rates (which are more closely linked to long-term rates than short-term rates) will decrease which could encourage additional spending. Mortgage rates which are also long-term in nature could also be reduced providing additional stimulus to the construction sector.

My statistical analysis indicates that a 100 basis point reduction in the long-term rates could lead to an additional 0.8% in real economic growth next year. At current levels of GDP, this translates into an extra \$40 billion in real activity.

#### A sustained recovery

In the 1960's, the Federal Reserve was powerful enough to mount the Operation Twist policy. Today, given the size of the government debt market, the Fed and the Treasury should join forces to initiate a modern-day Operation Twist.

The idea of changing the maturity structure is simple. There is no smoke and no mirrors. The shape of the current yield curve and the basic law of supply and demand suggest that the government could save at least \$12 billion a year by shifting more debt to the short-term.

## Implementing Operation Twist II

Given the size of the government debt market, the Federal Reserve could not successfully pursue the same strategy it pursued in 1961. The key player is the Treasury. With an estimated \$1.3 trillion in new government debt hitting the market over the next twelve months, the Treasury can affect the yield curve by changing the supply of various maturities.

For example, the 30-year bond is currently yielding 7.25%. If the Treasury cut back its offering of this maturity, supply would be reduced making the bond scarce. The price would be driven up and the yield would drop.

However, the focus should not just be on the 30-year bond. The Treasury should reduce the maturity structure of the Federal debt offerings. So they should offer less in the long-term range and more in the short-term range.

## Immediate direct benefits

In contrast to many policy initiatives, this one is money making. Shortening the average maturity of new debt offerings will reduce the interest cost leading to potential savings of \$12 billion per year.

Let's consider the debt that comes due in the next year (\$320 billion in Treasury notes and bonds and \$600 billion in Treasury bills) as well as the deficit financing which is currently expected to run at \$400 billion. Ignoring the debt of federal agencies, I estimate that \$1.32 trillion will be offered over the next 12 months.

If the Treasury continues its present maturity strategy, I estimate that they will float \$700 billion in Treasury bills and \$620 billion in notes and bonds. Suppose they change the maturity structure. I propose that the Treasury issue \$850 billion in bills, \$250 billion in 1-2 year notes and \$220 billion in other notes and bonds.

short-term instruments allows you the flexibility to go back to long-term financing.

There is another interesting aspect of short-maturity financing: It forces the government to be policy consistent. More specifically, the stated goal of sustained low inflation is enforced. Any attempt to deviate from the inflation policy will be very costly. Higher inflation immediately raises short-term rates and the Treasury must pay more in financing costs. Short-maturity financing has the same beneficial effect as inflation-indexed bonds.

## An important signal to market

A shift from long-term to short-term would provide an important signal to the market about future expected inflation. The current long-term yield of 7.25% suggests an inflation component of 5.25% and a real component of 2.0%. When the Treasury finances with the 30-year bond, it is saying to the market that they believe that inflation will be running above 5% in future.

A tilt in the maturity structure of the offerings would indicate to market that the Treasury believes that the rate of 7.25% is 'too high'. The policy action would serve to downsize long-term inflation expectations.

The supply effect of reducing the amount of long-term bonds will decrease yields. The expected inflation signal will reduce the yields even further. A policy of altering the maturity structure could easily knock 100 basis points off the long-term rates.

## Maintaining liquidity

Early in the year, Treasury Secretary Nicholas Brady proposed a moderate reduction in the reliance on long-term bonds. This suggestion drew a lot of flack. The Treasury Borrowing Advisory Committee (a committee of bond dealers and investors) advised Secretary Brady not to cut the amount of long-term debt

rates dropped quickly to provide the conditions for recovery. In 1980, the 10-year Treasury bond yield dropped 102 basis points in only 7 months. During the 1981-1982 recession, the same Treasury bond shed 363 basis points in 16 months. However, during the current recession, it has taken 26 months for rates to drop 100 basis points.

Long-term rates -- not short-term rates

term.

Indeed, in the last Treasury refunding, 60% of the offerings were long-term (10 years plus). A continuation this policy will keep long-term rates high. To provide the conditions for a sustained recovery, policies must shift towards lower long-term rates. It is time for Operation Twist II.

*Technical Appendix on next page.*

# Campbell R. Harvey

Campbell R. Harvey is Associate Professor of Finance here at Duke University's Fuqua School of Business. Harvey is an internationally recognized expert in global risk management. He received his Ph.D. from the University of Chicago in 1986 and joined Fuqua that year. Harvey was a visiting lecturer at the Helsinki School of Economics in the summer of 1990 and was appointed Visiting Associate Professor of Finance at the University of Chicago's Graduate School of Business in 1990-91.

Harvey sits on the Board of Directors of Torstar Corporation, an international media concern with publishing operations in 12 countries.

Harvey's research has generated attention from both academic researchers and practitioners. His dissertation showed how to extract forecasts of economic growth from various interest rates. These forecasts turned out to be more accurate than commercially available forecasts. His thesis was published in the *Journal of Financial Economics* (1988) and the *Financial Analysts Journal* (1989).

Harvey has applied his ideas to many other countries and has published articles in the *Journal of Fixed Income* (1991), *Weltwirtschaftliches Archiv* (1991), and *Analyse Financière* (1991). This research has also been featured in many other business publications around the world such as *Business Week*, *The New York Times*, *The Australian Financial Review*, *The International Herald-Tribune*, *De Financieel Economische Tijd* and *Barrons*. Harvey is a frequent guest on the U. S. business television station, CNBC.

Harvey is the recipient of numerous awards. In 1990, the R. L. Rosenthal Award for Innovation in Investment Management was given to Harvey. The Association for Investment Management and Research has recently honored Harvey with a Graham and Dodd Scroll in recognition of excellence in financial writing.

In the past two years, Harvey's work on the implication of changing risk for both domestic and international asset allocation has been featured at leading universities such as Stanford, Berkeley, MIT, Chicago, Princeton, and Northwestern. He has been invited to present his ideas in Canada and the U. S. as well as in Paris, Rotterdam, Helsinki, Athens, Rome, Istanbul, and Stockholm.

His current project is a quarterly publication called *The Harvey Forecast*. This publication will provide up-to-date forecasts of risk exposures, economic growth, foreign exchange movements, interest rates, inflation and stock returns in the seven major industrialized countries.