## BUSINESS CYCLE DEVELOPMENTS

The economy started slowing in November 2017 and the Quality Spread (10 yr. - Baa yield) bottomed in February 2018, as they typically turn in opposite directions within three months of each other - the spread usually leads the economic peak by a quarter ( $+/-3 \mathrm{mo}$ ). If this pattern continues, oil, the CRB and yields will cyclically peak out for at least a couple of quarters. It looks like T-Note yields have cyclically topped.

- For evidence of this relationship between the peak in output and the bottom in the Quality Spread see this April 2, 2018 update. In the current cyclical experience, output peaked three months before the Quality Spreads, which is unusual, as it has happened on only three occasions over the past $60+$ years - see the table in the April update. [Parenthetically - The trough in the 10 year T-Note vs. the 2 year typically occurs two months ( $+/-5 \mathrm{mo}$.) after the peak in output - we're still awaiting its reversal.]
- Oil prices have cyclically peaked with the trough in the Quality Spread and evidence of this is seen in this chart. Three trading days ago these bets on an oil reversal started to move - OILD, SCO, DTO and DNO.

| CONSEQUENCES: T-NOTE \& FF's RESPONSE to a PEAK in OUTPUT <br> DATA in COLUMNS \#2 \& \#4 are MONTHLY AVERAGES |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Business Cycle <br> Trough to Peak | 10 Yr T-Note Cyclical Peak | $\begin{aligned} & \text { Lead (+) or Lag ( }- \text { ) } \\ & 10 \text { Yr. to BCP } \\ & \hline \end{aligned}$ | Cyclical Peak in Fed Funds | $\begin{gathered} \text { Lead (+) or Lag ( }- \text { ) } \\ \text { FF'd to BCP } \\ \hline \end{gathered}$ |
| 4/58 to $1 / 60 \mathrm{r}$ | 1/60 | -0- | 11/59 | +2 mo |
| 2/61 to 10/66 sd | 8/66 | +2 mo | 11/66 | -1 mo |
| $7 / 67$ to 10/69 r | 5/70 | -7 mo | 8/69 | +2 mo |
| $11 / 70$ to $11 / 73 \mathrm{r}$ | 8/7̄ | -9 mo | 7/74 | -9 mo |
| 5/75 to $12 / 78 \mathrm{sd} / \mathrm{r}$ | 3/80 | -15 mo | 4/80 | -16 mo |
| $7 / 80$ to $5 / 81 \mathrm{r}$ | 9/81 | -4 mo | 6/81 | -1 mo |
| 12/82 to $6 / 84$ sd | 6/84 | -0- | 8/84 | -2 mo |
| $7 / 85$ to $1 / 89$ sd | 3/89 | -2 mo | 3/89 | -2 mo |
| $7 / 89$ to $9 / 90 \mathrm{r}$ Gurf war | I 9/90 | -0- | none ${ }^{1 .}$ | n/a |
| 3/91 to $1 / 95$ sd | 11/94 | +2 mo | 4/95 | -3 mo |
| 1/96 to $12 / 99 \mathrm{sd} / \mathrm{r}$ | 1/00 | -1 mo | 7/00 | -7 mo |
| 11/01 to 6/02 sd | 3/02 | +3 mo | none | n/a |
| - 8/03 to $1 / 06$ sd | 6/06 | -5 mo | 8/06 | $-7 \mathrm{mo}$ |
| 11/06 to 7/07 sd/r | 6/07 | +1 mo | 2/07 | +5 mo |
| $3 / 09$ to 5/10 sd | 4/10 | +1 mo | 4/10 | +1mo |
| 2/11 to $2 / 12$ sd | 3/12 | $-1 \mathrm{mo}$ | none ${ }^{2}$ | n/a |
| 10/12 to 11/13 sd | 12/13 | -1 mo | none ${ }^{2 .}$ | $\mathrm{n} / \mathrm{a}$ |
| 2/14 to 11/14 sd/r | 6/15 | -7 mo | none ${ }^{2 .}$ | n/a |
| $3 / 16$ to 11/17 sd/? | ?? | ?? | ?? | ? ? |
| SD - Slowdown; R - Recession 1.) Fed never tightened, as Gulf War I was one year after the previous $7 / 89$ trough in output. 2.) The Fed Funds rate was falling before and through the peak in output. <br> Red shade - yields peak after output peaks, so recession. No shading - yields peak with or slightly before or after output, so a slowdown. Green Shading - one time yields peaked late, but only an economic slowdown. |  |  |  |  |

- Ninety-four percent of the time the Quality Spread will lead the peak in the CRB Index by three months ( $+/-5 \mathrm{mo}$.), which implies cyclically lower commodities ahead in sympathy with slower output.
- The monthly average 10 Year T-Note is $3 \%$ for 19 trading days in May 2018. The Fed has recently taken a slightly easier stance and 10 year yields have responded, so it's looking like May 2018 will be a rolling cyclical top when compared to monthly average levels of February's $2.86 \%$ and April's $2.87 \%$ - the cyclical top is forming now. Having yields peak seven months (i.e. May) after the November peak in output "fits" the pattern seen above, if viewed as a rolling top, which mitigates the emphasis of the last BCD update that focused on a possible recession, if yields didn't relent. There was one occasion where yields peaked much later than output and only a slowing occurred - see arrows on the above table.

