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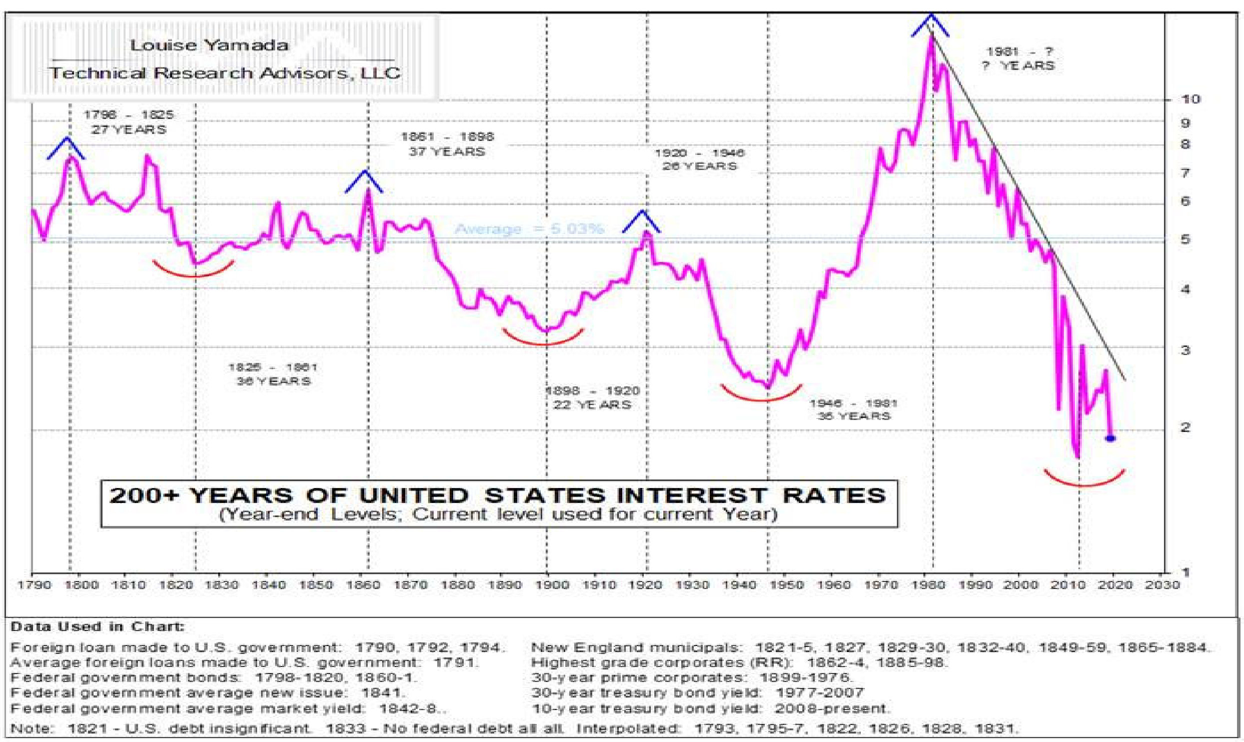
Structural 40-Year Interest Rate Reversal (December 2022-January 2023)

Occasionally in Technical Analysis we find ourselves observing major changes that allow New Major Technical Deductions…. *altering the Structural Environment* within which we must evaluate intermarket behavior and make our investment decisions. (The last major interest rate reversal into this 40-year falling rate cycle was a result of Paul Volker hiking rates to break the back of very high inflation in the early 1980s.)

We are firm believers in observing the longer-term trends, because even traders should know within WHAT longer term trend profile they are navigating. Further, since interest rates have been DECLINING now for 40-years, most young traders / investors, have <u>never experienced a RISING interest rate environment</u> ! Many market observers today are evaluating the interest rate behavior within the framework of the past 5- or 10-year-plus patterns. We believe currently this is a mistake.

From a technical perspective, the 40-year cycle of interest rates (from 1980-81) has ended and has reversed into a new rising interest rate cycle which could last for years. We present the technical evidence by looking first at the long term, 200 plus-year history of our US Interest Rates, plotted annually (see Figure 1), through the end of 2018 (based on the 10-year note for over a decade). From this chart we had made some overall observations.

Figure 1. 200+ Years of United States Interest Rates (Year-end plot through 2018)



NOTICE:

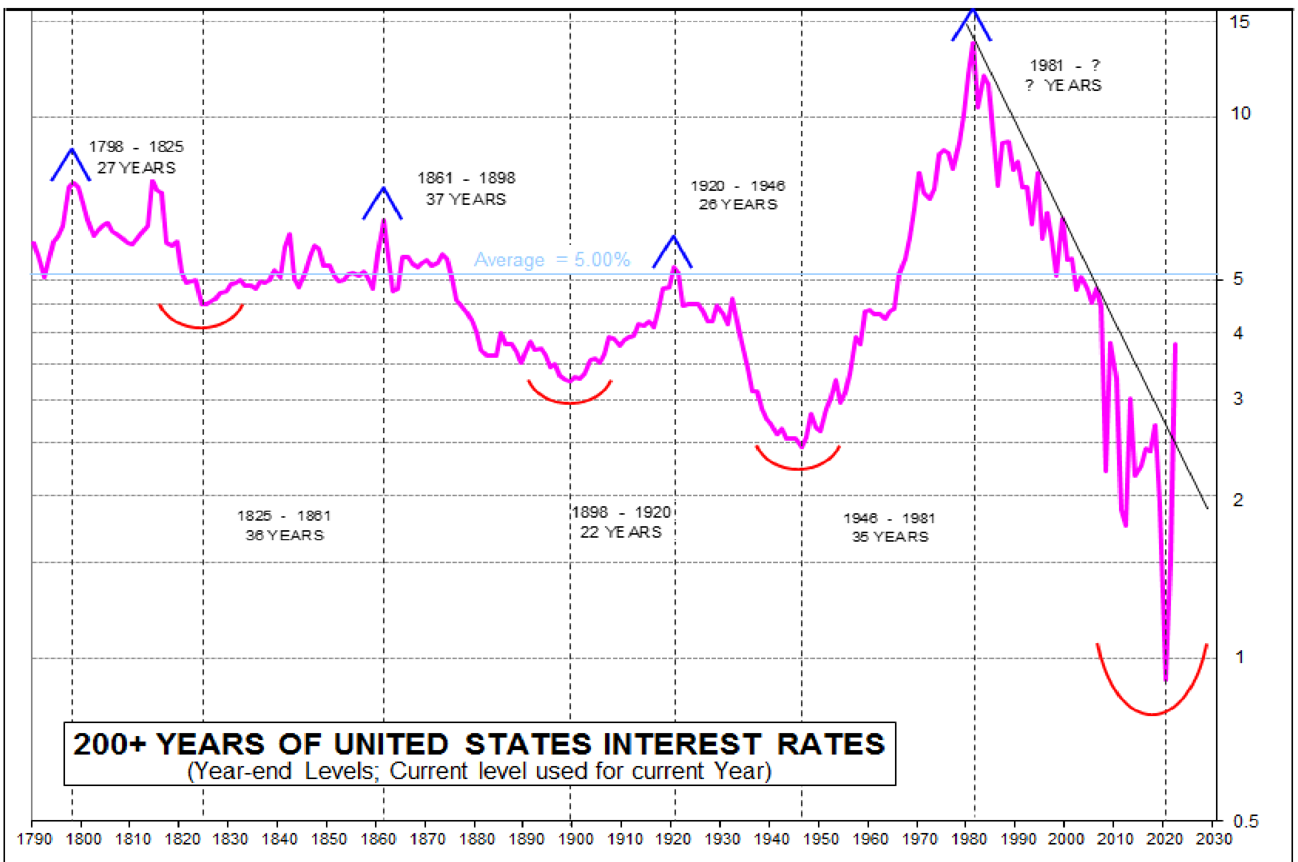
1-That interest rate cycles have been long, 22-37 years --- nearly one to a career!! Our Falling rate cycle *through 2018*, at 35 years, was awaiting a penetration of the *1981 Downtrend* (see Figure 1).

2- That reversals from Rising rate cycles (seen in the advancing / rising rates on the chart), to Falling rate cycles (see the declining / falling rates), have been sharp, inverted "V" affairs, as in 1981 (on Volker's action … breaking inflation).

3- That the reversals from Falling rate cycles to Rising rate cycles have been *very slow, saucer-like affairs*, (see saucers on the chart) that have taken 2-14 years! (Notice that rates turned up in 1946; that was 14 years after the 1932 equity bear market low).

Therefore, we had been watching for another saucer reversal since 2009. But just as the then apparent basing for yields (right saucer above) appeared complete, those support levels were breached…plunging rates to new *All- Time* lows, (see Figure 2).

Figure 2. 200+ Years of United States Interest Rates (Year-end plot through December 2022)



Data Used in Chart:

Foreign loan made to U.S. government: 1790, 1792, 1794.
Average foreign loans made to U.S. government: 1791.
Federal government bonds: 1798-1820, 1860-1.
Federal government average new issue: 1841.
Federal government average market yield: 1842-8..
New England municipals: 1821-5, 1827, 1829-30, 1832-40, 1849-59, 1865-1884.
Highest grade corporates (RR): 1862-4, 1885-98.
30-year prime corporates: 1899-1976.
30-year treasury bond yield: 1977-2007
10-year treasury bond yield: 2008-present.

Note: 1821 - U.S. debt insignificant. 1833 - No federal debt all all. Interpolated: 1793, 1795-7, 1822, 1826, 1828, 1831.

The pandemic liquidity crisis took hold, taking rates to a new low below 1%, before reversing! Throughout this history, no cycle has been as extended as ours today, *in the expanse / distance that rates have travelled,* from 15% to under 1%.

We believe these basing reversals are *slow* *because each falling rate cycle has experienced Deflationary Pressures,* as has ours … and that rates cannot rise until those pressures are alleviated, which takes time (as from 1932 -1946 noted above). So now, the current large saucer reversal, or basing process, has run approximately 12 years – roughly from 2009 -2022; still within the 2-14-year average.

Now, the 40-year downtrend from 1981 has been Definitively Penetrated, or reversed, toward higher interest rates … and has put in place a FIRST Higher interest rate high versus BOTH the 2018 and 2016 prior rebound peaks.

So finally, with the 2022-2023 Technical evidence of a Major Structural, 40-year trend reversal toward rising rates, *what should we expect?* The natural expectation of an uptrend is the anticipation of a series of higher lows (pullbacks in yield) that hold above prior lows; followed by higher highs in rates.

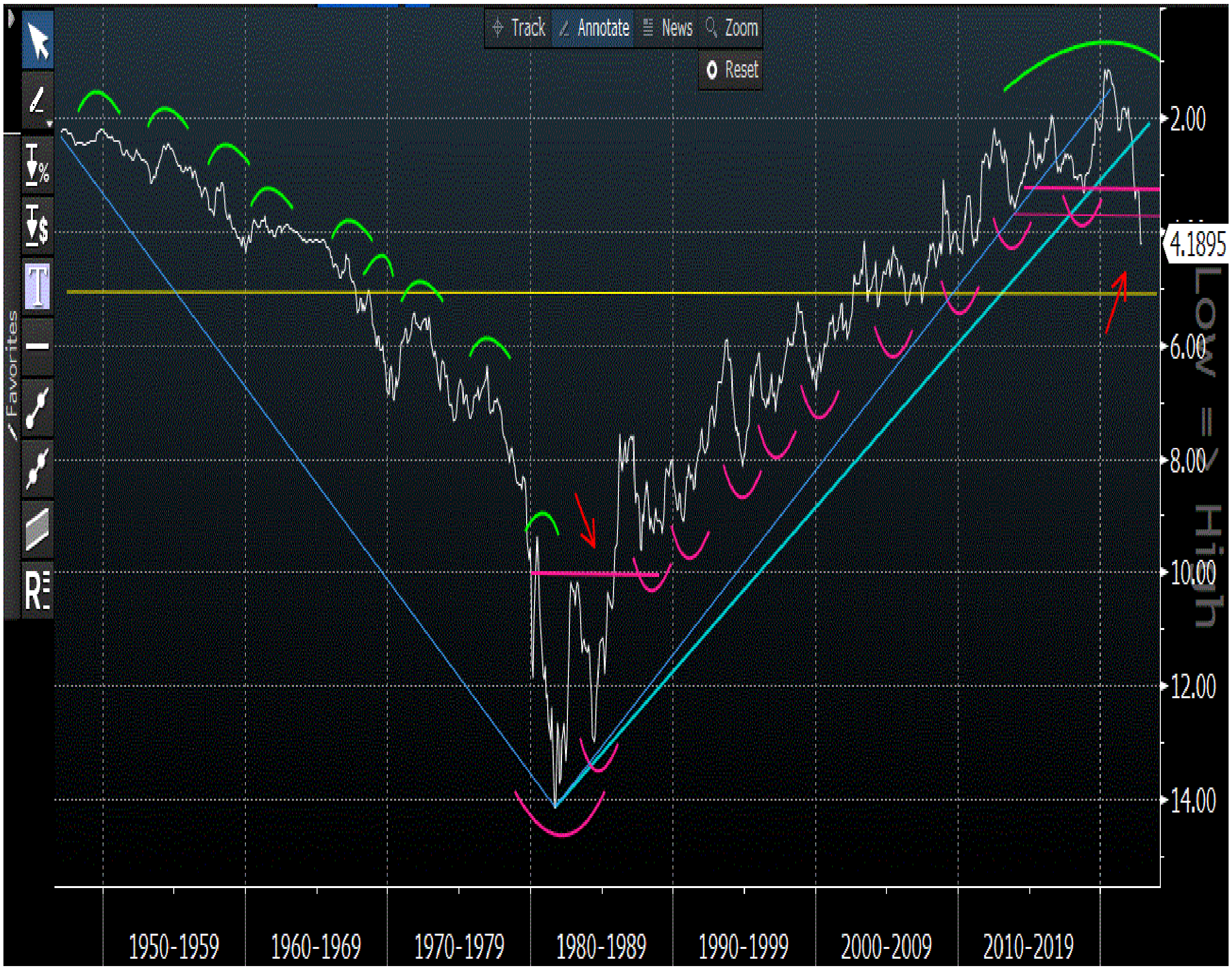
If we study the 1946-1981 *rising rate cycle* (see Figure 2), note that all the pullbacks in yield hold above the prior pullback lows; and these pullbacks can last weeks, but even months-to-years, in the evolution of a *new rising rate trend*. In particular, note the middle period pullback in the 1960s ... a multi-year, flat interval, or a mild pullback, which lasted for an extended timeframe before rates rose again … a hiatus in the uptrend.

Notice too, that the average level of rates through history has been about 5 % (see the faint horizontal line on Figure 2), above which in the late 1960s, resulted correspondingly to the end of the *equity* bull market. Thus, there is some point in the interest rate advance, at which *the equity market can become vulnerable*. One might note a comfortable range in other cycles roughly between about 3-6%.

Let's move in closer (see Figure 3) to view only the two 1946 to present cycles — one rising, one falling interest rate cycle --- and NOTE that rates here are *now plotted inversely,* with the low rates at the top and the high rates in 1980-81 at the bottom. S*o the direction of the line*, visually relates more to the direction of the *bond price.* During the 1946-1981 rising rate cycle, the *bond price was declining / depreciating;* and during the 1981-2022 falling rate cycle*, the bond price was rising / appreciating* --- we are just seeing *rates plotted inversely* (now shown on a *monthly, not annual*, plot).

Notice from 1946 to 1981 that all the *counter trend moves* (moves in the opposite direction from the major trend … see green arcs), failed to exceed the prior arc level in the Rising Rate cycle … but think of it as the *declining / depreciating direction of bond prices*. One can see that owning longer end bonds during a rising rate cycle is a losing proposition; one *never had an opportunity* to get out at a higher *price* … an environment we appear to be entering once again.

Figure 3. Ten-Year Yield 1946-2022, Inverted (Monthly)



Source Bloomberg & LYAdvisors

One can see the double bottom in 1981-82 – with a first higher low since 1946 --- and the breakout through a horizontal line, or neckline resistance, in 1985 (at the arrow), creating a 5-year double bottom (for price); a *double top for rates,* on Volker's action … initiating a *new trend for falling rates* (or rising / appreciating bond price).

That was the time, structurally, to own long bonds, from that neckline breakout at 10% !! One can note the degree of bond price appreciation (see rising trendline), as rates declined toward 1%

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(An Aside, my mentor Alan Shaw, wrote a major report on the breakout in 1985, stating that we might "Never see double-digit interest rates again in our Careers," with the caveat that we might have short careers!!!!)

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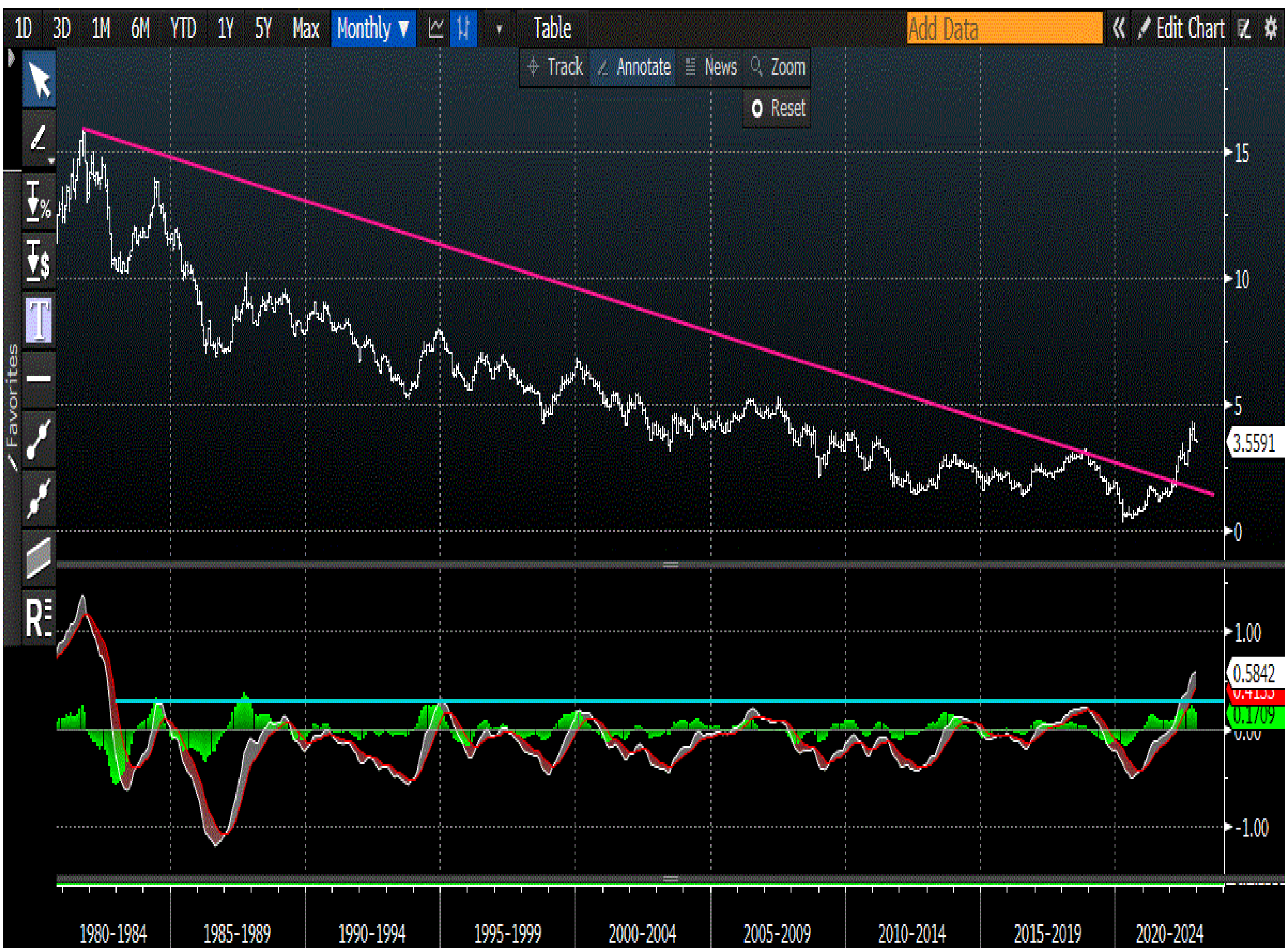
Notice in the 1981-2022, Falling Interest Rate cycle (rising Bond Price), that every back up in rates (pink saucers on right side), failed to exceed the prior saucer level throughout this falling rate cycle. Each backup in rates (higher saucer) thus offered another opportunity to *buy* bonds or notes for further appreciation as rates continued lower.

One can also note a fainter trendline in place which was broken in 2016 … but proved to be a *false breakdown* as rates backtracked and fell further, suggesting that the Final low was not yet in place; the *pandemic low* lay ahead in 2020, carrying interest rates to their lowest low ever, below 1%.

Eventually (see Figure 3), when the Fed recently initiated interest rate rises, the technical evidence *finally* developed for a major change of trend direction with: The more definitive 40-year, 1981-2022 trend violation, creating the rate reversal; the penetration (or break) through the two 2015, horizontal support lines, breaching the 2 prior saucer lows; and the first major penetration of previous arcs in the entire 40-year period (see upper right arrow), finally defining what has become a 12-year-plus extended saucer reversal (Major green Arc at top: 2009-2022).

Figure 4. Ten-Year Yield, 1981-December 2022 (Monthly)



Source Bloomberg & LYAdvisors

Moving in even closer (see Figure 4) to take a look at *only* the 1981 Falling Interest Rate cycle to date … the falling yield is plotted monthly, and plotted once again in the normal fashion, from higher to lower rates. One clearly sees the 40-year Trend Penetration and the *initial much higher high* … near 4% on the right side occurring emphatically for the first time in 40 years: A definitive interest rate, yield trend reversal from a falling rate cycle to a new *structural* rising rate cycle.

Additional MACD Confirmation

And we have another piece of structural Technical evidence as a confirmation (not visible in the former failed 2016 trend violation) to the Yield breakout, which can be seen in the monthly MACD (bottom of Figure 4).

First, note the many MACD yield *Buy* and *Sell* signals that took place along the 40-year cycle of declining rates, accompanying each rise and fall. All took place in more or less a flat horizontal plane (see MACD horizontal blue line that contained all those *Buy* and *Sell* signals). BUT NONE of the MACD *Buy* signals offered definitive evidence of a change of major trend (for yield to begin to rise), by exceeding this *40-year horizontal resistance line* --- UNTIL NOW, for what we would call confirmation of the yield breakout above.

So the now Definitive breakout in yield through resistance; the Reversal of the 40-year Yield Downtrend line penetration; AND for the first time with the MACD 40-year breakout offering an additional Technical piece of confirming evidence that the 1981 to 2022, 40-year, Falling Interest Rate cycle , now the *longest in our history*, has FINALLY reversed into a NEW RISING interest rate cycle!!!

This study presents the technical evidence that a major structural change has taken place and should play into how we manage all other aspects of the equity, commodity, and currency markets.

Extras: What should our expectations be moving forward? Study the 1946 Rising rate cycle and the other shorter cycles for clues in behavior (see Figure 2).

1- That each pullback in yield now should not fall lower than a prior pullback before rising once again (the 10-year ideally now should *not pull back* to exceed 3.5%) on the downside.
2- That weeks, months, even years can pass before a pullback resumes toward higher yields. This gives the Fed a chance to stop for a bit of time to see how things move forward / progress, before coming in again if necessary.
3- The 1946-2022 rising and falling cycles have been the 2 *longest in history*…. And we need not necessarily anticipate a similar pattern. Or maybe anticipate a longer one?

How to navigate a rising rate cycle?

1- To trade, follow the MACD signals for the interim advances and pullbacks.
2- One could buy short term Treasury bills / notes around the calendar, so they come due each month and can be rolled over into the next short- term bill / note at presumably a higher yield. This is not a Buy and Hold environment; this was visible in the 1946-81 chart and discussion (see Figure 3) wherein none of the interim yield moves exceeded the prior, resulting in an inability to exit a longer-term bond profitably.

TRENDS… A basic downtrend is lower highs (representing supply) … followed by lower lows (representing aggressive supply); A basic uptrend is higher lows (representing demand) followed by higher highs (ongoing demand).

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