

## **AMERICAN ECONOMIC GROWTH: CYCLES, YIELD SPREADS, AND STOCKS**

© Leo Haviland, 646-295-8385

March 4, 2019

In “Back in the U.S.A.”, Chuck Berry sings: “Yes, I’m so glad I’m livin’ in the U.S.A. Anything you want, we got right here in the U.S.A.”

\*\*\*\*

### **OVERVIEW AND CONCLUSION**

Marketplace and other cultural analysts create meaningful relationships between variables and groups of phenomena. As subjective perspectives differ, these faithful inquirers identify, define, select, assess, and organize evidence (data; facts; factors) in a variety of fashions. This results in diverse propositions, arguments, and conclusions, and thus an array of competing stories.

\*\*\*\*

In its discussion of America’s 4Q18 GDP growth, the NYTimes (3/1/19, pB1) stated that “most economists do not expect a recession this year.”

America’s current economic expansion is very long by historical standards. Of course history need not repeat itself. Conditions, including associations and patterns between variables, can and do change over time. Marketplace convergence and divergence trends (and lead/lag relationships) are not inevitable; they can shift, sometimes dramatically. However, devoted study of the ongoing economic expansion should not divorce itself from previous economic growth and decline episodes and patterns.

Interest rate yield relationships offer insight into economic history and prospects. Particularly given the remarkable length of America’s recent glorious real GDP expansion, marketplace clairvoyants should review the long run historical relationship between yields for lower-grade United States corporate bonds and the ten year US Treasury note in the context of American economic growth and recession cycles. The recent widening yield spread trend for this credit relationship warns that a US recession (or at least significantly lower growth than generally forecast), whether in calendar 2019 or not long thereafter, is more likely than most wizards anticipate. Moreover, current trends in the US Treasury yield curve, when placed in historic perspective, also underline the looming potential for an American economic downturn (or considerably slower growth than most soothsayers predict).

### **US GDP: PAST, PRESENT AND FUTURE**

The US Federal Reserve Chairman last month remarked that from 1991 through 2007 [recall the 2007-09 worldwide economic disaster that followed the close of the adorable Goldilocks Era], America’s economy grew annually at about three percent, “similar to the pace of much of the second half of the 20<sup>th</sup> century.” However, since 2007, real GDP growth has averaged merely 1.6 percent per year. (Speech; “Recent Economic Developments and Longer-Term Challenges”, 2/28/19).

US real GDP increased at a 2.6 percent annual rate in 4Q18. This rate slowed from 2Q18’s 4.2pc and 3Q18’s 3.4pc. Full year 2018 rose 2.9pc year-on year (probably assisted by the enactment of US tax “reform” legislation at end 2017). GDP in 2017 grew 2.2pc, with 2016’s at 1.6pc. From 2011 through 2018, America’s real GDP averaged growth of 2.2 percent a year (Bureau of Economic Analysis, 2/28/19).

What about prospective US real GDP growth? The American Dream's growth creed is avidly preached and widely embraced in both Wall Street and Main Street. Within these domains, cheerleaders for investment in general and rising stock marketplaces are particularly enthusiastic. For the American scene, how often do sweet-talking marketplace guides, including the Federal Reserve (and even supposedly non-partisan players in think-tanks and academia) forecast economic feebleness prior to its emergence?

According to the Fed's "Economic Projections" (12/19/18; next Fed meeting 3/19-20/19), the 2019 central tendency range for real US GDP growth is 2.3 to 2.5 percent, with that for 2020 between 1.8 and 2.0pc. No recession in sight! The mystical "longer run" range is 1.8 to 2.0pc as well. The International Monetary Fund's "World Economic Outlook Update" (Table 1, 1/11/19) predicts US real economic output will expand 2.5pc in 2019, but only 1.8pc in 2020 (global GDP increases 3.5pc in 2019 and 3.6pc in 2020).

### **THE TRUSTY FED**

During the dreadful times of the global economic crisis and its aftermath, the Federal Reserve (assisted by its central banking allies elsewhere) valiantly battled to achieve its mandated goals of maximum employment, stable prices, and moderate long-term interest rates. Extraordinary accommodative (easy money) policies such as yield repression and money printing (quantitative easing) became widely popular in Wall Street, Main Street, and political circles. In general, the Fed's actions, rhetoric, and accomplishments have produced deep faith in the Fed's abilities, determination, effectiveness, and gospel. From some perspectives, the Fed is like a benevolent fourth branch of government.

Many economic and political players in America and overseas are addicted to easy money schemes. Also, most people have confidence that the friendly Fed general has sufficient power to helpfully and substantially assist widely-desired economic objectives such as real GDP expansion (and higher stock and housing prices). Although avoiding or escaping a US recession is not a formally legislated or decreed Federal Reserve policy target, most economic pundits and players probably believe the Fed will do whatever it takes to avert a recession (or at least one that lasts very long). Note the recent Fed wordplay over its willingness to provide policy "patience"; for example, it will not rush to raise the Federal Funds rate further. Many marketplace coaches define a bear move in stocks as a decline of twenty percent or more from a top. Aren't such bearish US stock moves "bad"? Not so incidentally, the Fed's orations regarding patience became fervent as the S+P 500's decline from its autumn peak (9/21/18 at 2941; 10/3/18 at 2940) stood close to twenty percent (20pc decline equals 2353; 12/26/18 low 2347).

Thus complacency regarding American economic downturn (contraction) risks is substantial. Consequently, danger signals indicating the increasing probability of upcoming American GDP weakness, including trends in the US credit spread and government yield curve arenas, tend to be overlooked or minimized.

### **AROUND AND AROUND: US ECONOMIC CYCLES**

America's current long-running economic expansion itself probably inspires ongoing widespread optimism about its ability to persist. However, long run history should generate caution.

In economics as well as other cultural realms, “the past” (as well as “the present” and “the future”) is not necessarily the same to all marketplace chroniclers and other observers. Definitions of business “cycle”, expansion, and recession (contraction) are matters of opinion.

The National Bureau of Economic Research identifies and assembles “US Business Cycle Expansions and Contractions” for over 160 years, from end 1854 to the present. Unlike many other experts, “The NBER does not define a recession in terms of two consecutive quarters of decline in real GDP. Rather, a recession is a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales.”

According to the NBER, the most recent finished cycle was the contraction from December 2007 through June 2009. For cycles from 1854 to 2009 (33 total cycles), the average expansion (previous trough to peak) was 38.7 months. The average recession lasted 17.5 months. The post World War Two era had 11 cycles; the average bull move cycle persisted for 58.4 months, the typical contraction only 11.1 months.

What about the current expansion? Starting from July 2009 and extending through February 2019, it has lasted 115 months. The present magnificent growth cycle thus approaches the record 120 months of March 1991 through March 2001. It surpasses February 1961 to December 1969’s 106 months. Twice the average duration expansion of 58.4 months for the post WW2 period is 116.8 months. Three times the 1854-2009 average of 38.7 months equals 116.1 months. The current cycle to date far exceeds the joyous 73 month expansion from November 2001 to December 2007, which included the astonishing and beloved Goldilocks Era.

### **AMERICAN CORPORATE DEBT**

Various sources estimate the size of United States corporate debt. These seem to vary partly on what is being reported. Does the figure include only securities? Are these debt instruments only “bonds” (or some other fairly long term securities such as notes, or all durations)? To what extent do they include bank and other non-securitized loans? Are the corporations only “domestic nonfinancial” ones? In any case, the outstanding debt of American corporations is at a towering height. Thus yield fluctuations for corporate securities (and related changes in bank and other loan rates) have substantial economic importance.

The Federal Reserve’s “Financial Stability Report” (Table 1, 11/28/18) states that as of end 2Q18, US investment-grade corporate bonds outstanding were \$5.5 trillion, with the \$1.3 high-yield and unrated total another \$1.3 trillion. Note that this states “bonds”, not “debt securities” or “debt”. According to the Fed’s “Financial Accounts of the United States” (Z.1, Table D3; 12/6/18, next release 3/7/19), domestic nonfinancial US corporate business “debt outstanding” was about \$9.6 trillion at end 3Q2018 (2Q18 \$9.5tr). SIFMA estimated the sector “corporate debt”, part of “Outstanding U.S. Bond Market Debt”, was almost \$9.2tr at end3Q18.

### **YIELD SPREAD: US LOW INVESTMENT GRADE CORPORATE VERSUS UST NOTE**

“The thing that hath been, it is that which shall be; and that which is done is that which shall be done: and there is no new thing under the sun.” Ecclesiastes, 1:9.

\*\*\*\*

Corporate debt securities receive quality assessments and labels reflecting their perceived ability to satisfy interest and principal obligations. In this hierarchy, some interest rate instruments are deemed investment grade, others speculative (or “junk”). The universe of investment grade debt includes a range of qualities and ratings, from high to low.

The Moody’s Baa index for seasoned corporate bonds (all industries, but not only bonds of “industrial” corporate origin) includes bonds with an average maturity of 30 years, with 20 years the minimum maturity. Baa bonds are of minimum investment grade (medium grade within the overall rating structure which includes speculative instruments). They are neither highly protected nor poorly secured. Interest payments and principal security appear adequate for the present. However, certain protective elements may be lacking or may be characteristically unreliable over any great length of time. Adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitments.

\*\*\*\*

The US Treasury 10 year note is a widely-monitored benchmark in the government landscape, and that high-quality investment-grade instrument has an extensive marketplace history. Admittedly its duration is briefer than that for the Moody’s Baa corporate bond index. Of course the supply/demand situation for long-dated US corporate debt securities is not same as that for Treasury notes and bonds. However, the yield spread relationship between the Baa corporate index and the UST 10 year note nevertheless represents relevant important differences in credit quality between the corporate and federal government domains.

Significant shifts in this “credit spread” relationship between Moody’s Baa corporate bonds and the UST 10 year note at times can provide guidance as to the current and probable potential strength or weakness of the American economy. Given the importance of America in the world economy, especially as globalization has increased, the spread trend therefore can offer views regarding economic outlooks beyond America. As US interest rate levels (especially Treasury ones) and yield spreads intertwine in varying (and sometimes changing) ways with American stock, currency, and commodity marketplaces, they consequently influence foreign financial playgrounds to some extent.

\*\*\*\*

Not every apparent noteworthy “important” spread move between the Baa index and the UST 10 year note matches a business cycle. Not every yield widening “results” in (confirms) an economic peak.

In any case, recessions have not been abolished. So suppose we list the dates given by the National Bureau of Economic Research for US business cycle peaks in the post-World War Two period. The calendar month in which the ensuing business contraction (recession) ended is in parentheses. Examine, in relationship to the time of those expansion cycle peaks, the preceding and subsequent history of the Baa corporate less US Treasury 10 year yield spread. In the following table, the spread yield differences, expressed in basis points (“bp”), are based upon monthly yield averages for the Baa and UST (statistics from the Federal Reserve Bank of St. Louis).

Significantly, although the spread trend moves are not precisely the same, this survey generally portrays a widening of the credit spread prior to and at least up until the time of the business cycle’s expansion peak. Only once in the eleven examples below (July 1981 business cycle peak) did the starting date for the widening of the credit spread commence after the cycle high, and that was only one month later. Sometimes the yield differential’s widest point occurs several months

after the business cycle top. The yield trend for the two series does not always move in the same direction. For example, “flights to quality” can reduce UST yields while corporate yields ascend.

**US Business Cycle Peaks (troughs)**      **Baa less UST 10 Year Note Yield Spread**

1. November 1948  
(trough Oct 1949)      Low December 1945 at 77 basis points. Initial high December 1947 113 bp; Nov 1948 109bp. High of move 122bp August 1949.

[Yield spread began to rise prior to business cycle peak. Yield high after the business cycle peak. 45 basis point increase from Dec 1945 to August 1949.]

2. July 1953  
(May 1954)      76bp in Feb 1951 and Dec 1952; lower low 68bp March 1953; July 1953 93bp. High spread 123bp January 1954.

[Yield spread started to increase prior end of business cycle. Yield top after that peak. 55 basis point climb from March 1953 to January 1954.]

3. August 1957  
(April 1958)      59bp Aug 1955/60bp Aug 1956. 113bp in Feb 1957. Fell to 89bp August 1957, but marched to 182bp Dec 1957.

[Yield top followed business cycle peak. Spread differential increased 123bp from August 1955 to December 1957.]

4. April 1960  
(February 1961)      Low 50bp Sept 1959. Apr 1960 92bp. Top 132bp July 1960.

[Again, yield summit after cycle peak. Credit spread widened 82 basis points.]

5. December 1969  
(November 1970)      Merely 29bp in Feb 1966. Up to 139bp Jan 1967; fell to 97bp November 1967, up to 148bp July 1968. Down to 89bp Sept 1969, Nov 1970 was 254bp, with peak Dec 1970 273bp.

[Yield rally again began prior to the business cycle top and ended after it. Baa less UST 10 year widened monumentally, 244bp, from February 1966 until December 1970. However, even the climb from 97bp in November 1967 to November 1970’s elevation was impressive, 157bp.]

6. November 1973  
(March 1975)      Low 111bp July 1973. Peak 331bp in Jan 1975. At March 1975 cycle trough, was 275bp.

[Yield spread expanded 220 basis points. Yield low occurred a few months before the business cycle pinnacle, the high over a year after it.]

7. January 1980  
(July 1980)      93 basis points December 1978. Expanded to 299bp in May 1980. July 1980 was 240bp.

[Another example of the Baa less UST 10 year spread low preceding the business cycle crest. The yield ballooned 206 basis points; spread high followed the economic cycle top.]

## US Business Cycle Peaks (troughs)

## Baa less UST 10 Year Note Yield Spread

8. July 1981  
(November 1982)

Low 140bp Aug 1981. Soared to 382bp Oct 1982 peak.  
Nov 1982 375bp.

[Spread bottom slightly after the economic cycle summit, the single exception to the various examples in the table. Sharp 242 basis point spread expansion. ]

9. July 1990  
(March 1991)

131bp March 1989. July 1990 173bp. Peak 236bp  
January 1991.

[The credit spread differential bottomed before the business cycle peak and ended after it. The spread yield expanded 105bp.]

10. March 2001  
(November 2001)

130bp Jan 1995 (compare March 1989's low), long  
before March 2001. 145bp low April 1997. Grew to  
265bp Oct 1998. Fell to 167bp in January 2000.  
Mar 2001 was 295bp. However, peak was not 334bp in  
Oct 2001 (near time of the economic trough low),  
but 379 basis points in October 2002.

[Did the commencement of this yield spread adventure originate in January 1995 (130 basis points), April 1997 (145bp; quite a jump up to October 1998's 265bp interim high), or January 2000 (167bp)? In any event, all three dates preceded the business expansion cycle completion in March 2001. The spread widened 212 basis points from January 2000 until its October 2002 top.]

11. December 2007  
(June 2009)

Initial low 156bp March 2005 matched by Feb 2007's  
156bp. Reached 338bp March 2008. Slid to 297bp June  
2008. Exploded to 601 basis points in its Dec 2008  
pinnacle, establishing the post-World War Two record.  
In June 2009, it stood at 378bp.

[The yield spread bottomed before the advent of the global economic crisis. The differential leaped 445 basis points.

How does the December 2007 example compare with the August 1929 business cycle peak (March 1933 cycle trough) and the associated Baa/UST spread behavior? The final spread yield low at 204 basis points in February 1929 was only slightly beneath the preceding depth at 209bp attained in September 1926 and October 1927. The spread increased to 268bp in November 1929, falling only modestly to 233bp in April 1930. However, by June 1932, it was about 724bp, a massive 520bp widening from February 1929's depth.]

\*\*\*\*

The Baa corporate versus UST 10 year note yield spread continued to shrink during the economic expansion following the end of 2007-09's global economic crisis. The spread occasionally widened, establishing interim highs at 340 basis points in June 2012 and 356bp in February 2016.

The low for the Baa less UST 10 year spread in its narrowing from its December 2008 spike high around 600 basis points is February 2018's 165 basis points (monthly average). The February 2018 spread low probably is signaling at least to a notable slowdown in US (and global) real GDP

growth relative to current “consensus” expectations, and arguably to a recession in the relatively near term.

For the 11 post-World War Two business cycle peaks, the basis point widening move for the Baa/UST credit spread from its low to the high following the business cycle peak covers a wide range, from 45 to 445 basis points. What is the average of the eleven moves from start to finish? For the March 2001 business cycle, use January 2000 as the starting point for spread widening. Relative to these 11 cycle peaks, the Baa less UST 10 year spread widened an average of about 180 basis points.

February 2018’s 165 basis point low has been followed by modest widening. The Baa versus UST spread stretched to 241bp in January 2019 (227bp in February 2019), a 76bp expansion from February 2018. Though less than the 180 basis point average move for the 11 prior peaks combined, keep in mind that those widenings in the yield spread are for the complete spread journey, and thus extend beyond the time of the business cycle peak, often by many months. A substantial number of basis points often have accrued during the period subsequent to the expansion top date for the given economic bull move. As the NBER surely will not declare that a business cycle peak is in place as of February 2019, history suggests that there has been a “sufficient” amount of basis point widening since February 2018 to warn that a notable economic slowdown probably looms in the near future (and arguably even an eventual contraction/recession beckons). Further widening of this credit spread is probable if the American economic growth withers substantially relative to the 4Q18 real GDP rate, and likely as a recession emerges.

Remember that although US real GDP increased at a 2.6 percent annual rate in 4Q18, the rate has slowed from 2Q18’s 4.2pc and 3Q18’s 3.4pc. The blessing of substantial GDP growth sparked by the US tax “reform” legislation enacted at the end of 2017 seems to be slowly departing.

What else indicates the probability of a further significant widening trend for the Baa corporate less UST credit spread, and thus increasing probabilities for slower (weaker) American real GDP growth (and for higher chances for a recession)? February 2018’s basis point spread trough at 165bp (monthly average) is close to the March 2005/February 2007 Goldilocks Era lows at 156bp, as well as January 2000’s 167bp take-off level. Using daily prices for the spread, the basis point compression from the 2/11/16 high at 363 basis points to 1/31/18’s 156bp trough completed a two year diagonal calendar time move, an omen that a very important change (reversal) in the spread trend will follow that 1/31/18 bottom.

In addition, the narrowing of a key spread in the US government yield curve probably is warning of an increasing probability of recession (see the following section, “Yield Curves”).

\*\*\*\*

The Fed’s Financial Stability Report emphasized (11/28/18, p20): “the distribution of ratings among investment-grade corporate bonds has deteriorated. The share of bonds rated at the lowest investment-grade rating (for example, an S&P rating of triple-B) has reached near-record levels.” As of 2Q18, about 35 percent of corporate bonds outstanding were at the lowest end of the investment grade category. During an economic downturn, widespread downgrades of such bonds to a speculative grade rating could induce noteworthy investment liquidation, because some institutions face restrictions on owning bonds with ratings beneath investment grade.

Did quantitative easing (money printing) and yield repression solve global debt and leverage problems? The combination of sustained yield repression and enormous quantitative easing by the Federal Reserve, the European Central Bank, Bank of England, Bank of Japan, and other central

bank guardians probably encouraged ardent quests for yield (return). Investors and others voraciously bought corporate debt instruments (and stocks), thus helping to depress corporate bond yields. What happens to American corporate bond yields if central banks (even if at glacial speed) raise rates from current levels, or if the US economy weakens?

\*\*\*\*

In today's globalized economy, the US economic situation of course interrelates with that of other nations. For debt ratios in general, watch the relationship of debt as a percentage of GDP. High levels of corporate debt exist elsewhere, including China.

Analysis of credit spreads between sovereigns often provides insight into economic conditions and prospects as well as into other financial marketplace trends. For example, monitor the relationship between the Italian and German 10 year government notes.

### **US BUSINESS CYCLE PEAKS AND STOCK MARKETPLACE PINNACLES**

What is the relationship between United States business cycle peaks and major highs in key stock marketplace benchmarks such as the S+P 500 and Dow Jones Industrial Average? Review the preceding history of American business cycle pinnacles and the related Baa less 10 year yield spread in conjunction with several notable US equity peaks.

A major high in American stocks does not always converge ("fit") with or lead (or lag) the nation's business cycle peaks. For example, recall the S+P 500's 8/25/87 pinnacle around 338.

However, sometimes major tops in US stock marketplace signposts have occurred "fairly close" in time to American business cycle summits. A survey shows that the US stock marketplace attained six major tops in relation to the various business cycle peaks discussed above. Five of these preceded the business cycle high, with the time separation ranging from one month to twelve months. The 1929 stock marketplace summit occurred alongside the business cycle peak. On average, for these six relationships, the S+P 500 major high arrived prior to the business cycle peak by about five months.

The S+P 500's 10/11/07 pinnacle at 1576 preceded the December 2007 business cycle peak by roughly two months. The prior cycle peak of March 2001 linked with the S+P 500's crown one year earlier, 3/24/00's 1553. July 1981's business cycle high associated with the S+P 500's 11/26/80 top at 142. Recall the S+P 500's 1/11/73's peak around 122; that occurred about ten months before the November 1973 economic cycle top. About sixty years ago, the US business cycle peaked in August 1957; the Dow Jones Industrial Average made a double top around 523 before this (on 8/2/56 and 7/16/57). As the Great Depression neared, recall the 9/3/29 timing of the DJIA's major high at 386, connecting closely with the August 1929 business cycle peak.

Given the close historical relationship between a widening of Baa corporate bond versus US Treasury 10 year note spread and business cycle peaks, these US six stock summits thus link to that credit spread pattern. Underscore the credit spread expansion history; widening in the examples began prior to the business cycle peak. Thus it is significant that a US equity pinnacle, when linked to an economic cycle peak, also tends to precede that business cycle peak.

Therefore, the connection of (association between) a noteworthy widening of the Baa/UST credit spread with an important high in the S+P 500 thus indicates that a recession (or at least a significant slowing in growth) probably is fairly near in time.

How is this relevant nowadays? Recall that February 2018's 165 basis point low (monthly average; daily low was 1/31/18 at 156bp) in the Baa versus UST spread has been succeeded by modest widening. The Baa versus UST spread opened up to 241bp in January 2019 (227bp in February 2019), a 76bp expansion from February 2018. Remember that the S+P 500 made very important highs about five months ago (9/21/18 at 2941/10/3/18 at 2940). In addition, the S+P 500 attained an interim top in late January 2018 (1/26/18 at 2873), at about the same time as the bottom in the credit spread.

\*\*\*\*

Also, recall that the UST 10 year note made a major yield bottom on 7/6/16 at 1.32 percent. Its yield climbed to and established highs at 3.25pc on 10/5/18 and 3.26pc on 10/9/18. Compare the timing of the autumn 2018 summits in the S+P 500, 9/21/18's 2941 and 10/3/18's 2940, with the UST yield highs. US corporate earnings forecasts show mediocre growth for the near term. FactSet notes that analysts currently project 1Q19 S+P 500 corporate earnings will decline 3.2 percent year-on year; 2Q19 earnings growth inches up merely .3pc (less than one pc) versus 2Q18, with 3Q19 increasing only 1.9pc year-on-year ("Earnings Insight", 3/1/19). See also Refinitiv ("S&P 500 Earnings Scorecard", 3/1/19). Assuming these US stock marketplace highs remain in place, they arguably portend economic weakness. Is economic growth slowing in Europe, China, and Japan?

### YIELD CURVES

On 1/30/19, the Fed kept its Federal Funds target range between 2.25 and 2.50 percent. This rests slightly beneath its "longer run" central tendency of 2.50 to 3.00pc. (12/19/18's "Economic Projections). The Fed's late year 2018 willingness to embrace "patience" in regard to further rate increases probably will stop the Fed Funds rate from climbing much from current levels over the next several months.

\*\*\*\*

US government yield curve shapes and shifts within it can assist analysis of and conclusions regarding past, current, and future trends for the "overall" American economy and various interrelated financial marketplaces. Keep trends for credit spread relationships such as the Baa/UST one in mind when studying yield curve patterns and their fluctuations.

The Federal Reserve Bank of New York's website's Economic Research section includes a field titled "The Yield Curve as a Leading Indicator". Within that yield curve domain, on the basis of its model, the NY Fed provides "Probability of U.S. Recession Charts". Their model "uses the difference between 10 year and 3 month Treasury rates to calculate the probability of a recession twelve months ahead."

Take a look at the first chart, "Treasury Spread: 10 yr bond rate-3 month bill rate" (monthly average). The graph goes back to about 1960 and includes both the yield curve differential and eight designated recession periods. In a "positively" sloped yield curve environment, the 10 year yield exceeds that of the three month Treasury bill. A "negatively" sloped curve has short-term interest rates above those of the 10 year UST instrument.

Prior to the onset of a recession, the yield spread (10 year yield less three month bill yield) tends to become "less positive" (differential between the UST 10 year's interest rate and that of the

Treasury bill narrows). History shows that this yield curve “flattening” behavior has varied to some extent in speed and degree.

However, the chart (with the benefit of hindsight) implicitly displays a guideline pattern relevant to assessing the probable emergence of a US recession. When the 10 year less three month Treasury spread falls under a positive slope of 100 basis points, it warns of an eventual recession. When that spread ventures beneath zero (the yield curve becomes negative), even if only slightly, a recession is much more likely.

The spread has narrowed rather steadily since December 2016’s 197 basis point difference. It travelled under 100 basis points with June 2018’s 97bp average. The spread has remained under 100bp since then, with the January 2019 spread only 29 basis points (2.71pc less 2.42pc; the NY Fed’s most recent release was on 2/4/19, so it probably will release the February 2019 data in the near future).

In the second chart, “Probability of US Recession Predicted by Treasury Spread” (twelve months ahead, month averages), the NY Fed calculates the probability for recession in January 2020 at about 23.6 percent. This probability is not very high. Nevertheless, the probability percentage estimate has been rising for several months (clearly since December 2017). Moreover, gazing at the chart history suggests that a move in the probability percentage above the twenty percent threshold often (but not always) has preceded or coincided with a recessionary period.

\*\*\*\*

For additional marketplace analysis, see other essays such as: “Facing a Wall: Emerging US Dollar Weakness” (1/15/19); “American Housing: a Marketplace Weathervane” (12/4/18); “Twists, Turns, and Turmoil: US and Other Government Note Trends” (11/12/18); “Japan: Financial Archery, Shooting Arrows” (10/5/18); “Stock Marketplace Maneuvers: Convergence and Divergence” (9/4/18); “China at a Crossroads: Economic and Political Danger Signs” (8/5/18); “Shakin’ All Over: Marketplace Convergence and Divergence” (6/18/18); “History on Stage: Marketplace Scenes” (8/9/17).

\*\*\*\*

This essay is furnished on an “as is” basis. Leo Haviland does not warrant the accuracy or correctness of this essay or the information contained therein. Leo Haviland makes no warranty, express or implied, as to the use of any information contained in this essay in connection with the trading of equities, interest rates, currencies, or commodities, or for any other use. Leo Haviland makes no express or implied warranties and expressly disclaims all warranties of merchantability or fitness for a particular purpose. In no event shall Leo Haviland be liable for any direct, indirect, special, incidental, or consequential damages (including but not limited to trading losses or lost profits) arising out of or related to the accuracy or correctness of this essay or the information contained therein, whether based on contract, warranty, tort, or any other legal theory.

All content copyright © 2019 Leo Haviland. All Rights Reserved.