

RINGING IN THE NEW YEAR: US AND OTHER GOVERNMENT NOTE TRENDS

© Leo Haviland

January 6, 2020

Leo.Haviland@gmail.com

“Time present and time past
Are both perhaps present in time future,
And time future contained in time past.” T.S. Eliot’s poem, “Burnt Norton”

CONCLUSION

Since summer 2016, the marketplace yield trends for government 10 year notes of the United States and many of its key trading partners generally have resembled each other. Given today’s interconnected global economy, the crucial role of the United States within it, and the roughly similar central bank policy strategies for these nations, this pattern probably will continue.

Over the past three and one-half years, at times some moderate divergence appeared within that group. For example, yield highs for China’s 10 year government note (11/27/17’s 4.04 percent) and the German Bund (2/8/18’s .81 percent) preceded America’s critical yield top on 10/9/18 at 3.26 percent. But even when yield highs (lows) occurred at different times for some sovereigns relative to others, directional shifts in yield for the entire group tended to happen around the same time. Thus China’s 9/21/18 interim high at 3.71 percent and Germany’s on 10/10/18 at .58pc align with the UST yield pinnacle on 10/9/18.

The United States Treasury 10 year note yield completed a triple bottom during this era. Recall 7/5/12’s 1.38 percent trough. Then see 7/6/16’s 1.32 percent major low and 9/3/19’s 1.43pc. September 2019’s UST depth probably commenced an extended period of rising government (as well as other) interest rates for America and its important trading partners “in general”. Widespread and determined devotion by leading central banks to a gospel of sufficient inflation (the Federal Reserve’s two percent target is a key benchmark) and adequate GDP growth (and low unemployment) encourages this. Given America’s great importance within the world economy, its large current national debt and looming massive future fiscal deficits tend to propel UST interest rates (and thus American corporate yields) upward, and thereby help to raise government yields of many of its global trading partners.

Current central bank caution (including maintaining some yield repression and quantitative easing/money printing) may inhibit a rapid and large yield ascent for the US Treasury 10 year and its companions. In addition, rate climbs for the assorted 10 year government notes will not all necessarily be the same in distance or speed terms. And fearful “flights to quality” at times can depress government debt yields of “safe haven” nations such as America and Germany. For America’s 10 year Treasury note, significant resistance exists around two percent.

NOTABLE TWISTS AND TURNS: 10 YEAR GOVERNMENT YIELDS SINCE MID-2016

All else equal, globalization inspires the development of roughly similar sovereign debt yield patterns, especially among intertwined leading trading countries. However, national economic and political situations and policies of course are not identical. For example, the greater the variation between country monetary policy and government spending and indebtedness situations, the more likely is some divergence (perhaps substantial) between national yield levels and trends.

Historical settings (including “the past”) affect yield levels as well as the extent of convergence and divergence. Current and future supply availability of and demand for the particular instrument (such as the 10 year US Treasury note or the German Bund) also influence interest rate price trends and relationships.

The following two tables summarize the “overall” notable highs and lows in government (sovereign) interest rate yields beginning in mid-2016 for nine economically significant nations. The first table includes the United States; three important representatives of the important Euro Area (Germany, Italy, and Spain); the United Kingdom. The second contains Canada, Japan, China, and Mexico. In addition to the Euro Area as a whole, the five other nations likewise are important trading partners of the United States.

Over the time horizon since summer 2016, the tables detail significant yield shifts (turning points from a notable high or low) for those countries. Given longstanding and fierce yield repression from leading central banks, arithmetic basis point moves between turning points are not always substantial. For example, consider the consequences of European Central Bank strategy for Germany. See also the Japanese central bank monetary program’s influence on the yield percentage level of Japan’s 10 year government note.

Significantly, for the yield swings beginning in summer 2016, the timing of the directional (up and down) yield shifts for the various countries frequently have occurred at or around the same time. Hence convergence has existed or developed. Despite the broadly similar yield trend direction and convergence links (associations) across the central (federal) government note marketplaces, such price and time connections are not always perfect.

In the tables, all yields are in home currency terms unless otherwise indicated. Thus German and Italian debt is in Euro FX terms, with China’s yield based upon the renminbi.

On the yield front, the 2016 major yield low and the rate highs since that 2016 major trough are in bold. So are the valleys in late summer 2019.

	<u>USA</u>	<u>GERMANY</u>	<u>ITALY</u>	<u>SPAIN</u>	<u>UK</u>
2016 MAJOR LOW	1.32 (7/6/16)	-.21 (negative) (7/6/16)	1.03 (8/15/16)	.86 (10/3/16)	.50 (8/15/16)

[Italy’s August 2016 yield bottom duplicated 3/12/15’s key 1.03 percent trough.]

Interim High	2.64 (12/15/16)	.51 (3/14/17)	2.42 (3/17/17)	1.95 (3/14/17)	1.54 (12/15/16)
---------------------	--------------------	------------------	-------------------	--------------------------	--------------------

[The German Bund’s low yield following 3/14/17’s elevation was .15pc on 4/18/17. Germany’s high during this mid-year 2017 time span occurred thereafter, on 7/14/17 at .60 percent. Though the July 2017 minor top occurred after March 2017’s, it only slightly exceeded it. The July 2017 crest represented part of the general pattern of slowly rising European interest rates.]

	<u>USA</u>	<u>GERMANY</u>	<u>ITALY</u>	<u>SPAIN</u>	<u>UK</u>
Mid-2017 or Later Interim Low	2.01 (9/8/17)	.28 (9/8/17)	1.63 (12/8/17)	1.16 (3/29/18)	.92 (6/14/17)

[Italy's 4Q17 low was later than Germany's 9/8/17 one. However, Germany's yield low on 12/11/17 matched 9/8/17's .28 percent. Spain's late 1Q18 depth lagged the comparable German trough of September 2017. The UK's second low on 9/8/17 at .95pc paralleled the timing of the UST trough.]

1st half 2018 High	3.13 (5/18/18)	.81 (2/8/18)	3.44 (5/29/18)	1.74 (5/29/18)	1.69 (2/15/18)
-------------------------------	-------------------	-------------------------------	-------------------	-------------------	-------------------

[The UST 10 year attained an interim top on 2/21/18 at 2.96pc, close in time to Germany's (and the UK's) February high.]

Mid-2018 Minor Low	2.75 (5/30/18)	.19 (5/29/18)	2.46 (7/18/18)	1.47 (6/19/18)	1.10 (5/29/18)
-------------------------------	-------------------	------------------	-------------------	-------------------	-------------------

[The initial UST minor low during mid-2018 was 4/2/18's 2.71 percent. The German Bund established a second low at .28pc on 7/6/18. The UK note created a second floor on 7/20/18 at 1.17pc. Note also the UST's 8/24/18's 2.80pc low in relation to the timing of Germany's 8/17/18 additional minor trough at .29pc.

During the Eurozone crisis, the European Central Bank President delivered his famous "whatever it takes" speech on 7/26/12. The German 10 year note's interim low was 7/23/12 at 1.13 percent. Recall in regard to that height Germany's important interim high at 1.06 percent on 6/10/15. The 4/17/15 interim low preceding June 2015's crest hovered only five basis points above zero.

Italy's 2011-2012 Eurozone crisis yield peak occurred in November 2011 at 7.48 percent. Spain's first yield plateau was in November 2011 at 6.78pc, the pinnacle July 2012's 7.75 pc. Watch sovereign credit spreads, such as that for Italy and Spain against the German Bund.

Italy's July 2018 low bordered not only 3/17/17's high, but also 6/30/15's important 2.43pc top. Italy's proposed (populist) fiscal policies helped its government note yield to bounce toward four percent by mid-October 2018.]

Autumn 2018 High	3.26 (10/9/18)	.58 (10/10/18)	3.81 (10/19/18)	1.82 (10/19/18)	1.75 (10/10/18)
-----------------------------	---------------------------------	-------------------	----------------------------------	--------------------	----------------------------------

[France's 10 year government note's price and time pattern generally fits that of the countries discussed above. Its yield bottom was .09 percent (positive nine basis points) on 7/11/16. The French note's fall 2018 high was 10/10/18's .93pc; the interim low prior to this was 7/3/18's .61pc. October 2018's elevation remains beneath 2/6/17's 1.16pc high (as well as 6/10/15's 1.40pc top). Spain's October 2018 high approached 3/14/17's 1.95pc plateau.]

The UST 10 year note yield attained its 10/9/18's 3.26 summit at 3.26 (3.25pc on 10/5/18), very close in time to the S+P 500's memorable interim highs on 9/21/18 (at 2941) and 10/3/18 (at 2940).

	<u>USA</u>	<u>GERMANY</u>	<u>ITALY</u>	<u>SPAIN</u>	<u>UK</u>
Late Summer 2019 Low	1.43 (9/3/19)	-.74 (negative) (9/3/19)	.75 (9/12/19)	.02 (8/16/19)	.34 (9/3/19)
Recent High	1.97 (11/7/19)	-.16 (1/2/20)	1.49 (1/2/20)	.51 (1/2/20)	.89 (12/13/19)

[The UST 10 year yield edged close to its November 2019 level with its 12/19/19 and 1/2/20 highs around 1.95 percent.]

OTHER PLAYERS: 10 YEAR GOVERNMENT YIELD TRENDS SINCE SUMMER 2016

	<u>CANADA</u>	<u>JAPAN</u>	<u>CHINA</u>	<u>MEXICO</u>
2016 MAJOR LOW	.91 (2/11/16)	-.30 (negative) (7/27/16)	2.66 (8/15/16)	5.78 (9/6/16)

[The Canadian government 10 year note's final yield low was .94 percent on 9/30/16. China's initial low occurred 1/14/16 at 2.77pc. Mexico's government note established a noteworthy yield trough prior to and beneath that of its September 2016 one, at 5.20pc on 1/28/15. Its 12/11/15 high was 6.41pc.]

Interim High	1.88 (3/13/17)	.15 (2/3/17)	3.50 (2/6/17)	7.76 (1/5/17)
-------------------------	-------------------	-----------------	------------------	------------------

[China did not exactly fit the pattern, though the upward trend in its interest rate continued for a while. From a minor low at 3.24 percent on 3/24/17, the note yield climbed to 5/10/17's interim top at 3.70pc. It then decreased to June 2017's 3.50pc trough (which happened to match 2/6/17's high).]

Mid-2017 Interim Low	1.37 (6/16/17)	-.01 (negative) (9/4/17)	3.50 (6/20/17)	6.66 (6/26/17)
-------------------------------------	-------------------	-----------------------------	-------------------	-------------------

1st half 2018 High	2.53 (5/17/18)	.10 (2/2/18)	3.98 (1/18/18)	8.05 (6/15/18)
--	-------------------	-----------------	-------------------	-------------------

[China's 10 year government note high since summer 2016 remains 11/22/17's 4.04 percent. This timing of this yield peak thus diverges from that of other nations fairly significantly. However, China's note achieved a second high, on 1/18/18 at 3.98pc, shortly before Japan's 2/2/18 top and Germany's 2/8/18 summit.

China, Japan, and Germany are heavily reliant upon international trade for their economic growth. The earlier yield highs for China (11/22/17) and Germany (2/8/18) relative to the autumn 2018 plateaus achieved by several other nations arguably partly reflected not only increasing economic sluggishness for China and Germany, but also their great exposure to trade war (tariff) conflicts.

Mexico's 10 year government note yield, prior to June 2018's interim high, had established a lower top on 12/27/17 at 7.82 percent. A subsequent notable yield low, above June 2017's trough, occurred at 7.24pc on 4/5/18.]

	<u>CANADA</u>	<u>JAPAN</u>	<u>CHINA</u>	<u>MEXICO</u>
Mid-2018	2.06	.02	3.43	7.55
Minor Low	(6/27/18)	(7/2/18)	(7/20/18)	(6/29/18)

[Japan's JGB made other lows at .02 percent on 11/22/17 and 3/26/18.]

Autumn	2.61	.17	3.71	9.26
2018 High	(10/10/18)	(10/4/18)	(9/21/18)	(11/27/18)

[China's ongoing yield decline since November 2017 confirmed the nation's economic slowdown. It also probably reflected an easy money policy scheme (including yield repression).]

Late Summer	1.08	-.29 (negative)	2.99	6.74
2019 Low	(8/15/19)	(8/29/19)	(8/15/19)	(10/9/19)
Recent	1.73	.02	3.34	7.17
High	(12/19/19)	(12/23/19)	(10/30/19)	(12/3/19)

US TREASURY 10 YEAR NOTE YIELD PATTERNS

Recall Bob Dylan's song, "The Times They Are A-Changin'"

Focusing on American government yield trends and important support and resistance levels offers insight into the American interest rate situation in general. Given the entanglement of United States interest rate patterns with those elsewhere, this investigation thereby provides guidance for international yield trends in general. Let's look at the US Treasury 10 year note.

Highlight the triple bottom in the US Treasury 10 year note yield. Recall 7/5/12's 1.38 percent trough and 7/6/16's 1.32pc major low, followed by 9/3/19's 1.43pc. The similar yield levels and the extended duration (seven years) for the span of these valleys underline the probability that the long run major trend in UST yields is upward. If this floor is broken, it probably will not be by much.

Did the UST 10 year bull price trend end with 7/6/16's 1.32 percent bottom, or with 9/3/19's 1.43pc low? Given the timing links across various important global interest rate arenas, evidence from other critical marketplaces is very relevant. Given the great significance of Germany and Japan in the global economy, and as their government debt yields are crucial signposts alongside the UST for interest rate watchers, their 10 year note trends are relevant to this issue.

Germany's 10 year note yield, unlike America's, did not establish a triple bottom, or even a double one, between 2012 and 2019. Instead, notable yield lows were broken as time passed. On 6/1/12 and 7/23/12, the German Bund made a low at 1.13 percent. On 7/6/16, it rested at -.21 percent, with 9/3/19's -.74pc even more severely negative. Japan's JGB did not create a triple

bottom. Its 7/25/12 low at .72 percent was minor, and though 4/5/13's .33pc stands out somewhat more, the yield kept slumping. However, Japan's JGB probably built a double bottom with 7/27/16's -.30 percent and 8/29/19's -.29pc; compare the timing of the UST 10 year note's 2016 and 2019 lows.

Given the close timing links between American, German, and Japanese 10 year government note marketplaces since mid-summer 2016 (see the preceding tables), the similar timing of the lows in September 2019 for these three marketplaces hints that they are trading "together" nowadays from the standpoint of major lows. Thus although the UST 10 year reached its major bottom in July 2016, its final low probably occurred in September 2019.

In this context, the very long duration of the preceding major bear pattern in UST yields also points to the likelihood that an upward march in American and other key global government yields in general commenced in September 2019. Examine the pattern of lower and lower noteworthy peaks from 1981 to 2018. America's interest rate decline commenced with 9/30/81's heavenly 15.84 percent. After 9/30/81's majestic summit, recall 10/15/87's 10.23 percent, 11/7/94's 8.03pc, 1/21/00's 6.83pc, 6/13/07's 5.32pc, 6/13/08's 4.27pc (neighbored by 4/5/10's 4.01pc and 2/9/11's 3.77pc), and finally 10/9/18's 3.26pc.

Often in financial marketplaces, after a notable price trend move lasting around a year, either a sideways pattern or a significant trend reversal emerges. The UST's yield slump from October 2018 to early September 2019 ran about 11 months.

Though the UST 10 year note's 10/9/18's 3.26 percent yield may not appear very lofty from the arithmetic perspective, the percentage collapse in yield terms to 9/3/19's 1.43pc was substantial—about 56.1 percent (3.26pc less 1.43 pc is 183 basis points; 183/326 equals 56.1pc). Compare the UST 10 year note yield cratering (bull moves in the UST price) which began in 2000 and the yield crash during the 2007-09 global economic disaster. The UST 10 year yield peaked on 1/21/00 at 6.82 percent. Its bloody fall to 6/16/03's major bottom at 3.07pc (375 basis points) was a 55.1 percent fall in yield terms. The murderous drop from the Goldilocks Era peak, 6/13/07's 5.32pc, to 12/18/08's dismal depth at 2.04pc (328 basis points) was 61.7 percent. The similar percentage decline in the UST note since October 2018 in comparison to those beginning in 2000 and 2007 indicates that 9/3/19 probably represents a major (final) bottom for the UST (and that even if 7/6/16's 1.32 percent floor is broken, it will not be by much).

Significant resistance for the UST 10 year note yield stands at around two percent. Recall not only 9/8/17's important take-off point at 2.01 percent, but also the bottom during the global financial crisis, 12/18/08's 2.04pc. A fifty percent yield rally from 7/6/16's floor equals 1.98pc. The 11/7/19 high was 1.97pc. A 50pc rally from 1.43pc (9/3/19) gives 2.15pc; the UST collapsed after the minor tops at 2.18pc (6/11/19) and 2.15pc (7/12/19).

In conjunction with the UST 10 year note's ceiling around two percent, watch the German Bund's resistance around -.20 percent, its 7/6/16 interim low. The final interim high before 9/3/18's -.74 bottom was 7/15/19's -.21pc. Though the Bund reached -.16pc on 1/2/20, it has not decisively pierced through -.20pc. For the JGB, sustaining a climb above zero, and especially a move beyond 10/4/18's .17pc high, would be significant.

Yield resistance for the UST also is around 2.65 percent. Twice 7/6/16's 1.32pc major bottom is 2.64pc; half the Goldilocks Era summit (5.32pc on 6/13/07) is 2.66pc.

Watch the 3.00 to 3.25 percent barrier. The 10/9/18 high was 3.26 percent (10/5 and 11/7/18 at 3.25pc), with 5/18/18's 3.13pc adjacent to it. Don't forget 1/2/14's 3.05 percent yield top, and see also 6/16/03's low at 3.07pc.

The first important resistance range for the UST 10 year note above the 3.25 percent level looms between 3.75 percent (3.77 pc was 2/9/11's plateau) and 4.25pc (6/13/08's significant interim top was 4.27pc). Recall 10/5/98's 4.16 percent bottom (and 11/1/01's 4.10pc low); see also subsequent tops around 4.00pc (6/11/09 at 4.00pc; 4/5/10 at 4.01pc). Three times 7/6/16's 1.32pc trough is 3.96pc.

Major support for the UST 10 year note exists around its 7/25/12 (1.38 percent)/7/6/16 (1.32pc)/9/3/19 (1.43pc) triple bottom.

Beneath that floor is 1.00 percent. A 66pc yield crash from 3.26pc is 1.09pc.

In some scenarios, flights to quality into (and thus lower yields for) allegedly high-quality debt (such as American, German, or Japanese government securities) may be accompanied by yield spikes in relatively low-quality instruments. Such lower quality debt may be that of a sovereign state. Picture emerging marketplaces; also, recall government debt yield spikes in Greece, Italy, Portugal, and Spain during the Eurozone crisis. Low-quality corporate debt (even if labeled as investment grade) likewise is vulnerable to adventurous yield climbs.

PRESSURE POINTS: PUSHING US TREASURY YIELDS HIGHER

The Federal Reserve Board promulgated its monetary "patience" doctrine for United States policy interest rates around end-calendar 2018 because of economic slowdown fears (including risks from trade war conflicts), sharp declines in the S+P 500 and other global equity playgrounds, and pressure from President Trump. It cut the Federal Funds rate three times during calendar 2019. Central banking allies such as the European Central Bank enhanced or maintained existing highly accommodative monetary policy schemes.

The St. Louis Fed's five-year, five-year forward inflation expectation rate climbed from 1.41 percent in mid-2016 (6/17, 6/27, and 7/5/16) to 2.35pc on 2/2/18 (2.29pc on 10/9/18; compare the time of the UST 10 year yield high). The St. Louis Fed's inflation expectation rate yardstick slumped to 1.87pc on 1/3/19; recall the emergence of the Fed's "patience" (easy money) propaganda around that time, signaling that guardian's dogged determination to deliver "sufficient" inflation. Though the St. Louis expectation measure climbed to 2.10pc on 4/25/19, it has remained beneath two percent after 7/25/19 (low 1.64pc on 10/31/19). As of 1/3/20, this five-year rate was 1.85pc.

The Fed's December 2019 projection (12/11/19) for the longer run Federal Funds rate is 2.4 to 2.8 percent. However, it then forecasted 2020 at 1.6 to 1.9pc.

In America and many other leading nations, populist pressures (coming from both the left and right wings) have encouraged the creation and persistence of central bank easy money policies. Central banks are part of the "establishment" (elites). They do not want widespread social and political unrest to discourage economic growth or significantly disrupt economic structures. However, heated populist battles do not forever preclude interest rate increases.

The Fed's 12/11/19 Press Release, like those issued in preceding months, again spoke of "the [Federal Open Market] Committee's symmetric 2 percent objective". The Fed nevertheless recently appears to be emphasizing its "symmetry" theory regarding its two percent inflation goal more than its patience ideology. A willingness to countenance sustained inflation somewhat above (overshooting) the two percent inflation target, or raising the target itself, points to eventual renewed yield rises in the Federal Funds rate and thus higher UST 10 year note yields.

According to the Financial Times, "Fed weighs letting inflation headline run above target" (12/2/19, p2). Moreover, former Fed Chairman Bernanke recently (1/4/20) delivered an important address at the Brookings Institution, "The New Tools of Monetary Policy". This beloved and influential luminary preached that if the nominal neutral rate of interest falls beneath about two percent, a moderate increase in the inflation target (or significantly greater reliance on fiscal policy) may become necessary "to keep inflation and inflation and interest rates from falling too low" (and to fight recessions). See also the NYTimes article (1/5/20; website) "Ex-Fed Chair Says 'Old Methods Won't Do' in Downturn".

The New York Fed's "Underlying Inflation Gauge" estimates trend CPI inflation is in a 2.1 to 2.3 percent range as of December 2019. Most marketplace debt investors (savers) over the long run want (deserve) a positive return relative to inflation. A 50 basis point spread over a two percent Federal Funds rate gives 2.50pc. All else equal, the more (and longer) that America's "inflation rate" surpasses the Federal Reserve's two percent target (or a growing fear that this will occur), the greater the likelihood of a breakout by the 10 year UST note over its two percent resistance and an eventual challenge to the 3.25 percent roadblock.

In addition to such shifts in Fed (and similar central bank) policy orientation, upward pressure on US Treasury yields relative to current levels exist from other sources.

All else equal, the current low United States unemployment rate and the disappearance of America's output gap portend higher wages and other prices, and thus further American interest rate rises. America's unemployment rate was merely 3.5 percent in November 2019. The Fed's December 2019 projection (12/11/19) for the unemployment rate's long run (central tendency) is 3.9 to 4.3pc (though 2020's midpoint is 3.6pc).

According to the International Monetary Fund (October 2019 World Economic Outlook database), the US no longer has an output gap as a percentage of potential GDP. The gap was about -4.8 percent in 2009 during the global economic crisis, narrowing to -1.1pc in 2014. However, it narrowed further and became a positive number thereafter (so no gap), reaching almost 1.8 percent in 2019, with 2020 predicted at 2.0pc.

Survey the troubling United States federal debt situation, which has potential to spark yield increases. See the Congressional Budget Office's "An Update to the Budget and Economic Outlook: 2019 to 2029" (8/21/19) and "The 2019 Long-Term Budget Outlook" (6/25/19).

US federal budget trends point to large future deficits and increasing debt levels as a percentage of GDP. The nation's exciting tax "reform" law enacted at end 2017, championed primarily by Republican legislators (and corporations and affluent individuals), substantially expanded the federal deficit. Under current law, these deficits will persist. Various spending (entitlement) schemes adored by several Democratic Presidential contenders have a substantial likelihood of

worsening the existing deficit problem and trend. And the long run US deficit problem was substantial even before the tax reform law.

The Democratic House of Representatives probably will not compromise often on significant issues with the Republican Senate and President, including tax and spending ones, especially in election year 2020. Since therefore tax reform as well as entitlement spending (note the long run burden of such obligations) will remain in place, America's trend of substantial budget deficits and expanding (increasingly worrisome) public debt will remain entrenched.

Not only does America have significant internal divisions across various parameters (political ideology, economic principles (and haves versus have-nots), age, sex/gender, region, urban/rural, racial/ethnic background, religion). The sharp partisan politics (which partly reflect these cultural divisions) likely will persist on the national legislative stage at least through the 2020 election, and probably for many months thereafter. Populist agitation from diverse directions will continue. So will quests from various elites (the establishment) to preserve or enhance their privileges (forms of entitlement). Thus fiscal compromises involving substantial reductions in budget deficits probably will remain difficult to achieve.

To what extent will foreigners keep financing gaping US federal deficits, especially if the US dollar also begins to weaken? Looking forward, what probably will happen to United States government interest rates if foreigners are not significant net buyers (or become net sellers) of US Treasury debt? US dollar depreciation alongside rising US interest rates would greatly dismay many foreign holders of US government securities.

Given the importance of America in the intertwined domains of the global economy, the US national budget deficit and debt level trends as a percentage of GDP not only probably will continue to generate US Treasury rate climbs over the long run, but also will assist a global upswing in yields.

Significant global credit demand (net borrowing) in an environment where overall worldwide debt (government, corporate, household) already is substantial as a percentage of GDP tends to push global yields higher. For many countries, not just America, there is little likelihood for notable government debt reduction anytime soon. And a fair amount of corporate debt is of mediocre quality. The World Bank warns: "Global debt [government plus private] has trended up since 1970, reaching around 230 percent of GDP in 2018." The international government debt level as a percentage of GDP nowadays is greater than at the advent of the 2007-09 global economic disaster. ("Global Waves of Debt: Causes and Consequences"; Figure 1.1, p6; 12/19/19).

Even the German Bundesbank now hints at the need for Germany to engage in deficit spending. The Financial Times states (12/16/19, p2): "Bundesbank head warns against 'fetish' of balanced budget."

A sustained oil price rally also can help boost inflation rates and global yields. Yet there is potential for a "flight to quality" move into UST, and thus a tumble in US Treasury interest rate levels, if the petroleum rally "goes too far" and incites widespread recessionary fears.

US DOLLAR AND UST NOTE VOYAGES

Subjective (personal) perspectives create and influence viewpoints on marketplace variables and their relationships and trends. And as marketplace history is not marketplace destiny, history need not repeat itself, either completely or even partly.

Rising US Treasury yields can assist (inspire; confirm) appreciation in the US dollar; similarly, falling American government interest rates sometimes can link to dollar weakness. However, such relationships are not inevitable and thus do not always occur. Thus ascending UST 10 year note yields can accompany US dollar depreciation. In addition, various apparent marketplace convergence and divergence (lead/lag) relationships and patterns can shift and even transform, sometimes dramatically.

Historical analysis demonstrates that observers must be very cautious about making generalizations regarding the US government interest rate/US dollar relationship (including convergence/divergence and lead/lag issues) and reasons relevant to that association. Much depends on numerous other entangled and changing financial and political variables. For both America and its important trading partners, factors include phenomena such as past, current, and anticipated GDP and inflation rates; currency, monetary, and fiscal policies; stock, real estate, and commodity marketplace price levels and trends.

What is the current connection (pattern) between the UST 10 year note yield trend and that of the United States dollar? Since around September 2019, the UST 10 year yield has been increasing modestly alongside a slight decline in the dollar. This pattern of rising UST yields and falling US dollar probably will continue.

Cross rates such as the US dollar versus the Chinese renminbi entrance politicians, the Wall Street community (especially its currency warriors), regiments of corporations, earnest financial media storytellers, and some Main Street pilgrims. However, broad dollar indices (such as those of the Federal Reserve Board and Bank for International Settlements) better indicate the level, strength (weakness), and trends of a country's currency.

The Federal Reserve releases indices for a real Broad trade-weighted dollar H.10; monthly average; "TWD"; 1/2/20). First, examine the TWD's real Broad Dollar Index (which includes goods and services; January 2006=100). It started a major bull charge from July 2011's bottom at 83.9. It peaked in December 2016 at 110.1, significantly above March 2009's worldwide economic disaster pinnacle at 101.5. Though the TWD has remained strong since December 2016, it has not surpassed that summit. The goods and services based TWD fell to 100.2 in February 2018. It thereafter climbed to September 2019's interim high at slightly over 108.4 (August 2019's level was just under 108.4). Since September 2019, this indicator has fallen slightly but steadily. In October 2019, it was 107.9, with November 2019 at 107.8. The TWD ebbed slightly lower in December 2019, to 107.2.

The TWD's real Broad Dollar Index's (goods only; March 1973=100) financial crisis summit was March 2009's 96.8. The subsequent major low for this goods-only TWD index was July 2011's 80.5, with the following peak December 2016's 103.3. It averaged 102.8 in both August and September 2019, inching down to 102.2 in October 2019 and 102.0 in November 2019. December 2019 stood at 101.5. This TWD weathervane in Aug/Sept 2019 stood beneath December 2016's 103.3 pinnacle. Thus the pattern of this goods only dollar barometer mirrors that of the Broad Dollar Index which based upon both goods and services.

The September 2019 real TWD highs thus occurred alongside the US 10 year note's 9/3/19 yield bottom at 1.43 percent. Recall that September 2019's US 10 year note depth is part of a triple bottom dating back to July 2012. It seems that the TWD's December 2016 pinnacle and the September 2019 are forming a double top (though admittedly the TWD has tumbled only slightly lower since autumn 2019). Therefore, UST yields apparently are advancing as the TWD is slowing descending.

Now take a very broad brush approach for the relationship between the US 10 year note and the America's TWD since early 2011, an almost nine year era. The 2/9/11 high in the UST at 3.77 percent was an important interim top within the long term decline in government yields. The TWD's July 2011 depth was a major low. Suppose the final low for the UST occurred in September 2019. Though September 2019's real Broad Dollar Indices did not exceed their December 2016 plateaus, they arguably unite with their December 2016 pinnacle to form a (December 2016/September 2019) double top. Thus from "around" first half 2011 to roughly September 2019, generally falling (relatively "low") UST yields travelled alongside a generally rising (and eventually relatively "strong" dollar). A dramatic reversal of that relationship would be one in which the UST 10 year yield ascended significantly "in conjunction" with a notable tumble in the US dollar.

Remember the calendar 2011 marketplaces in the UST and dollar from the vantage point of the S+P 500 as well. The S+P 500 resumed its magnificent bull move on 10/4/11 at 1075 (3/6/09 major bottom at 667). This occurred not terribly long after 2/9/11's 3.77 percent yield top in the UST 10 year note and the US TWD's July 2011 major bottom. Thus the S+P 500's trend is "related" to those in the UST 10 year and the TWD.

The UST 10 year yield recently (beginning in September 2019) ascended significantly "in conjunction" with a drop in the real US dollar (also around September 2019). One should not be dogmatic in evaluating historical or current marketplace relationships and trends. However, this apparent UST and dollar reversal beginning in September 2019 (from their prior long run pattern dating to 2011) hints that the S+P 500 likewise probably will reverse its "related" bullish trend (which resumed in October 2011). Thus, looking forward, the S+P 500 probably will decline. As in calendar 2011, the UST 10 year note and the real Broad Dollar trade change will precede and thus lead to a trend change in the S+P 500.

The US Administration wants the dollar to depreciate. In election year 2020, it thereby hopes to maintain adequate US GDP growth. According to the Financial Times (citing International Monetary Fund data on central bank reserves; 10/10/19, p19), "Central banks start to edge away from US dollar." For further analysis of the United States dollar and other marketplaces, see "Trade Wars and Currency Trends in the Trump Era" (11/7/19); "Emerging Markets, Commodities, Bitcoin, and the S+P 500: Travels and Signs (12/3/19), and other essays.

Recall the association (linkage) beginning around end December 2018/early 2019 between a relatively strong US dollar and upwardly moving asset prices, particularly dollar-denominated ones. Around that time, investors and other marketplace participants (speculators, traders) wondered where they should put their money when government interest rates were so low (and in many government realms around the globe, even negative). An intensified hunt for sufficient (good, reasonable, acceptable) yield (return) coincided with (partly resulted from) the

promulgation of the Fed's glorious accommodative patience doctrine (and the related effort through at least the first eight months of calendar 2019 to reduce UST rates).

The real Broad TWD (goods and services) was 107.7 in December 2018. It stayed strong (though in a narrow range) during calendar 2019, with February 2019's 105.9 the calendar year 2019 low. The S+P 500 (12/26/18 valley at 2347) probably was the leader in this asset price climb, but spotlight also feverish price jumps in other advanced nation equities, emerging marketplace stocks in general, lower-grade United States corporate debt, as well as emerging marketplace sovereign debt securities denominated in US dollars. Around Christmas 2018, the petroleum complex joined the constellation of bull moves in dollar-priced assets.

The yield quest probably helped to maintain US dollar strength throughout calendar 2019. American stock marketplace strength arguably encouraged faith that America and the dollar (and dollar-denominated assets) were good places to place one's funds. But the dollar can remain "too strong for too long". For example, picture the exposure of foreign debtors with substantial dollar debt obligations and inadequate revenues. Thus (all else equal), sustained higher UST 10 year note yields, especially if that trend coincided with a weakening TWD, probably will encourage (lead to; confirm) a decline in stocks, lower-grade corporate debt, and many other asset sectors.

HISTORY REVISITED: US GOVERNMENT NOTE YIELD INCREASES AND US STOCK PRICE FALLS

US stock marketplace valuations, according to many perspectives, appear lofty from the very long run historical vantage point. Of course such a situation can persist for quite some time, especially if the "free supply" of equities is low and a notable search for yield persists. However, the eager hunt for return via US equities (and other instruments) which accelerated in early 2019 (encouraged by the Fed's patience plan and similar policies of its central banking friends) probably will be slowed substantially by rising government yields.

America's generous tax "reform" blasted US year-on-year corporate earnings to celestial heights, which motivated greater ardor to own US stocks (and to engage in stock buyback and merger and acquisition programs). However, in contrast to calendar 2018's awesome earnings growth versus the prior year, US corporate earnings increases for calendar 2019 were mediocre, up around one percent year-on-year. Will the nation's calendar year 2020 earnings growth expand close to ten percent versus 2019's level, as an array of optimists forecast? Will US consumer spending slow?

Suppose United States 2020 election battles return the Democrats to power in the Presidency (and the House, and perhaps in the Senate as well). The tax reform cuts which benefited US corporations (launched corporate earnings upward) and the wealthy probably will not stay in place. The reversal of tax reform legislation, or even the growing chance that such an event will transpire, all else equal, will encourage drops in stock prices. The increasing likelihood of eliminating (or substantially slashing) the tax reform benefits, given the conjunction with the link between stock prices and dollar strength during the Trump era (and especially since early 2018), warns of eventual weakness in the US real effective exchange rate. What if Congress threatens to increase capital gains tax rates as well?

Many "significant" financial marketplace bull (bear) price trends which have lasted around a year either halt (consolidate) and move sideways, or reverse and head a notable distance in the opposite direction. The S+P 500's explosive 38.8 percent flight from 2347 on 12/26/18 to the high to date, 1/2/20's 3258, is a one year diagonal time move.

“History on Stage: Marketplace Scenes” (August 9, 2017) concluded: “many times over the past century, significantly increasing United States interest rates have preceded a noteworthy peak in key stock marketplace benchmarks such as the Dow Jones Industrial Average and S+P 500. The yield climb sometimes has occurred over a rather extended time span, and the arithmetical (basis point) change has not always been large. Sometimes the yield advance has extended past the time of the stock pinnacle.”

The climb in the US Treasury 10 year note yield from 1.32 percent to 10/9/18’s 3.26 percent “led” to the S+P 500’s important high on 9/21/18 (2941)/10/3/18 (2940). The S+P 500 raced downhill to 12/26/18’s trough at 2347, a 20.2 percent decline.

The S+P 500 thereafter has soared to new highs, reaching 3258 on 1/2/20. Is the ascent in the US Treasury 10 year note yield since its 9/3/19 bottom at 1.43 percent (and related increases in the ten year note yields of other important sovereign debt marketplaces) leading to a peak in the mighty S+P 500 (and other key stock marketplaces)? Probably.

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 © 2020 Leo Haviland. All Rights Reserved.