**<u>TWISTS, TURNS, AND TURMOIL: US AND OTHER GOVERNMENT NOTE TRENDS</u>**

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In "The Age of Anxiety", the poet W.H. Auden remarks: "Gradually for each in turn the darkness begins to dissolve and their vision to take shape."

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## <u>OVERVIEW AND CONCLUSION</u>

Since summer 2016, using the 10 year central government note as a benchmark, global interest rate yields for leading nations "in general" gradually have risen. The United States has been the key nation propelling "overall" debt yields upward. Also since summer 2016, marketplace trend twists and turns from the price and time perspective for this assortment of nations usually has been fairly close.

Relatively strong American economic growth and tightening Federal Reserve Board policies have played important roles in the worldwide rate increase process. The reduction of central bank yield repression is and will remain a crucial factor underpinning the long run yield increase trend. Even the European Central Bank and Bank of Japan, which have ongoing lax monetary policies, suggest they eventually will become slightly less accommodative.

Significant global credit demand in an environment where overall global debt (government, corporate, household) already is substantial also is an important element tending to boost global yields. The international government debt level as a percentage of GDP nowadays is much greater than at the advent of the 2007-09 global economic disaster. For many countries, including America, there is little likelihood for notable government debt reduction anytime soon.

Expanding United States federal budget deficits resulting from December 2017's exciting tax "reform" legislation probably have encouraged the ascent in American yields. Given the importance of America in the interconnected global economy, the US national budget deficit and debt level trends as a percentage of GDP not only will continue to generate US Treasury rate climbs over the long run, but also will assist a global upswing in yields. America's tax reform scheme exacerbated the already massive long run federal budget problem (big deficits alongside entitlement spending, etc.; higher demand for credit). By helping to push American US government interest rates higher, the tax reform magnifies the country's monumental debt challenge.

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Despite the broadly similar rising yield trend direction and convergence links (connections, associations) across the central (federal) government note marketplaces since summer 2016, the pattern of course is not always perfect. Also, as time passes, divergence within this "overall upward trend" may emerge. For example, whereas the US Treasury 10 year note's yield high to date since summer 2016 is 10/9/18's 3.26 percent, the German Bund (81 percent on 2/8/18) and China's 10 year central government note (11/22/17's 4.04pc) attained their highs many months earlier. In addition, rate climbs are not all necessarily the same in distance or speed terms. For countries engaged in substantial yield repression, the advance may be fairly small and slow for quite a while.

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Fearful "flights to quality" occasionally may inspire yield falls in so-called safe haven government debt instruments issued by nations such as America, Germany, and Japan. Central banks likely will become (or remain) highly accommodative if the global recovery appears seriously threatened. The reality of or omens pointing to feebler than expected (desired) GDP growth (in conjunction with other variables) may spark such yield declines, and perhaps also induce renewed accommodative central bank actions (or at least soothing rhetoric from such earnest guardians).

In the current marketplace situation, additional notable erosion in the prices of global stock marketplace benchmarks from their calendar 2018 summits might also inspire relatively significant retreats in debt yields. For example, a decline in the S+P 500 of nearly twenty percent or more from its autumn 2018 peak could connect with government yield declines (and perhaps with the emergence of central bank propaganda or action to rally stock prices).

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The major (long run) trend for US government interest rate yields, and for other nations around the globe, probably remains up. Despite tumultuous twists and turns, the long run upward march in government interest rate yields which commenced around the middle of 2016 likely will remain intact. The UST 10 year note's 3.26 percent high yield will be exceeded.

However, the declines in global stock marketplaces (especially the S+P 500's slump since its September 2018/October 2018 peak), especially if interpreted alongside the failure of German and Chinese 10 year government notes to establish yield new yield highs close in time to those in the UST (and other important countries), warn that a temporary halt to (or noteworthy slowdown in) the overall global pattern of rising government rates (including in America) is being established. Some yield declines in government notes may be rather dramatic. However, based upon a perspective of a long run extending for several years from now, such yield descents probably will be temporary.

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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 accompanying 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.

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Central government debt yields interrelate with those of states, municipalities, and corporations. Levels and travels for advanced and emerging marketplace stocks, currencies (especially the US dollar), commodities, real estate, and other phenomena of course intertwine with interest rate trends. Various marketplace convergence and divergence (lead/lag) relationships and patterns can shift and even transform. As marketplace history is not marketplace destiny, history need not repeat itself, either completely or even partly.

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"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 US Treasury 10 year note's 7/6/16 major bottom at 1.32 percent probably ushered in an extended period of rising rates, which probably will connect with (lead to) a peak in the DJIA and S+P 500. This subsequent upward yield shift is only partly on stage, and so far its entrance has been modest. Despite the massive amount of money printing in recent years by the central banking fraternity, the ultimate extent of the rate increase may not be massive. The yield repression (and quantitative easing) era that began during the dark ages of the global economic disaster has not exited. The heavy hand of central bank yield repression (manipulation) not only was extraordinary, but still looms large."

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For additional marketplace analysis, see "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), and other essays.

## RAISING THE CURTAIN: 10 YEAR GOVERNMENT YIELDS

All else equal, globalization to some extent encourages the development of roughly similar international yield patterns. So does the embrace of similar central banking and fiscal policies by advanced nations such as America, Germany, and Japan. However, 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") also influences yield convergence and divergence. The 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 will influence interest rate price trends and relationships.

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Around late 2008/early 2009, the Federal Reserve Board, European Central Bank, Bank of Japan, Bank of England, and several other key central banks valiantly embarked upon concerted highly accommodative interest rate yield manipulation. After many years, the beloved Federal Reserve ceased its money printing program. It slowly has reduced its yield repression and raised the Federal Funds rate. US government interest rate levels have risen across the yield curve. Yield repression and quantitative easing (money printing) nevertheless persists nowadays in many nations. But the European Central Bank and Bank of Japan hint that slightly tighter (less highly accommodative) monetary policy will occur, even though their shifts probably will be slow.

Given that central bank yield repression has been longstanding, as it becomes less severe around the globe, interest rate yields probably tend to climb (all else equal) in somewhat similar fashion. Growing consumer price inflation (encouraged by central banks; think of the glorious two percent target) and ascending wages encourage broad-based yield rises. Besides, don't savers eventually need to receive some real return relative to inflation? Growing credit demand in the government sector (and perhaps in the household and corporate arenas as well) and significant national debt levels as a percentage of GDP also can boost interest rate yields.

## TAKING NOTES: 10 YEAR GOVERNMENT YIELDS SINCE MID-2016

"Time present and time past
Are both perhaps present in time future,
And time future contained in time past." "Burnt Norton", a T.S. Eliot poem

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The following two tables summarize the "overall" rise in interest rate yields for various important nations since mid-2016. Over that time span, the tables detail significant yield shifts (turning points) for those countries. Given fierce yield repression from leading central banks, arithmetic basis point moves between turning points are not always substantial. For example, note 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. Within this overall uptrend since summer 2016 for rising yields, 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.

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. Brazil and Turkey are exceptions; their yields are in US dollar-denominated terms.

On the yield front, the 2016 major yield low and the rate highs since that 2016 major trough are in bold.

| | USA | GERMANY | ITALY | SPAIN | UK |
|---|---|---|---|---|---|
| **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.]

| | USA | GERMANY | ITALY | SPAIN | UK |
|---|---|---|---|---|---|
| **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 2018 crest remains part of the general pattern of slowly rising European interest rates.]

| | USA | GERMANY | ITALY | SPAIN | UK |
|---|---|---|---|---|---|
| **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 had a yield low on 12/11/17 that matched 9/8/17's .28 pc. 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.]

| | **USA** | **GERMANY** | **ITALY** | **SPAIN** | **UK** |
|---|---|---|---|---|---|
| **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 made an interim top on 2/21/18 at 2.96pc, close in time to Germany's February high.]

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|---|---|---|---|---|---|
| **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 made 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 gave his famous "whatever it takes" speech on 7/26/12. The German 10 year note's interim low was 7/23/12 at 1.13pc. 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 July 2018 low bordered not only 3/17/17's high, but also 6/30/15's important 2.43pc top. Italy's recent proposed (populist) fiscal policies helped its government note yield to jump toward four percent by mid-October 2018.]

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|---|---|---|---|---|---|
| **Recent 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 low was .09 percent (positive nine basis points) on 7/11/16. Its recent high was 10/10/18's .93pc; the interim low prior to this was 7/3/18's .61pc on 7/3/18. October 2018's elevation remains beneath 2/6/17's 1.16pc high (as well as 6/10/15's 1.40pc top.

Persistent and arguably growing populist tendencies in various nations around the globe, if associated with inflationary policies (including budget indiscipline) can help to boost interest rates. On the European scene, Italy has captured recent headlines.

Watch sovereign credit spreads, such as that for Italy and Spain against the German Bund. Italy's 2011-2012 Eurozone crisis yield peak occurred 11/9/11 at 7.48 percent. Spain's first yield plateau was 11/17/11's 6.78pc, the pinnacle 7/25/12's 7.75 percent.]

**MORE NOTES: OTHER 10 YEAR GOVERNMENT YIELDS SINCE MID-2016**

| | **CANADA** | **JAPAN** | **CHINA** | **MEXICO** | **INDIA** |
|---|---|---|---|---|---|
| **2016 Major Low** | **.91 (2/11//16)** | **-.30** (negative) **(7/27/16)** | **2.66 (8/15/16)** | **5.78 (9/6/16)** | **6.14pc (11/25/16)** |

[Canada's final low was .94 percent on 9/30/16. Note China's initial low occurred 1/14/16 at 2.77pc. Mexico's government note established a notable yield low 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.]

| | **CANADA** | **JAPAN** | **CHINA** | **MEXICO** | **INDIA** |
|---|---|---|---|---|---|
| **Interim High** | 1.88 (3/13/17) | .15 (2/3/17) | 3.50 (2/6/17) | 7.76 (1/5/17) | 6.99 (5/2/17) |

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

India's significant 2016 yield low and its spring 2017 interim high lagged those in many other government note marketplaces. However, valleys and highs for Indian note yields thereafter more closely fit the "overall" pattern elsewhere from the timing perspective.]

| | **CANADA** | **JAPAN** | **CHINA** | **MEXICO** | **INDIA** |
|---|---|---|---|---|---|
| **Mid-2017 Interim Low** | 1.37 (6/16/17) | -.01 (negative) (9/4/17) | 3.50 (6/20/17) | 6.66 (6/26/17) | 6.40 (7/24/17) |
| **1st half 2018 High** | 2.53 (5/17/18) | .10 (2/2/18) | NA | 8.05 (6/15/18) | 8.03 (6/8/18) |

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

Japan's February 2018 yield high occurred alongside Germany's 2/8/18 one.

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

India's additional minor low 4/5/18's 7.12pc, was higher than July 2017's level.]

| | **CANADA** | **JAPAN** | **CHINA** | **MEXICO** | **INDIA** |
|---|---|---|---|---|---|
| **Mid-2018 Minor Low** | 2.06 (6/27/18) | .02 (7/2/18) | 3.43 (7/20/18) | 7.55 (6/29/18) | 7.68 (8/2/18) |

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

| | **CANADA** | **JAPAN** | **CHINA** | **MEXICO** | **INDIA** |
|---|---|---|---|---|---|
| **Recent High** | **2.61 (10/10/18)** | **.17 (10/4/18)** | 3.71 (9/21/18) | **8.94 (11/9/18)** | **8.23 (9/12/18)** |

[India made a second top, 10/4/18's 8.21 percent.

China's yield decline since November 2017 probably confirms the nation's economic slowdown. It also may reflect an easy money policy scheme (including yield repression) aimed at weakening the renminbi in the international trade and currency war theaters. At around 3.48pc on 11/9/18, China's government note stands near its July 2018 trough.

In the two tables, Mexico's yield high to date is the only one in the array that occurred after mid-October 2018.]

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Look at yield fluctuations for the 10 year government notes of two other widely-watched emerging marketplaces, Brazil and Turkey (their note yields are in US dollar-denominated terms). These two nations, like many others, display a climbing yield pattern beginning in mid-year 2016.

Brazil's 10 year note yield made an important bottom on 8/16/16 at 4.25 percent. After venturing up to 5.64pc on 12/15/16, it descended to match the August 2016 low on 9/8/17. Its recent yield high is 9/4/18's 6.34pc (slightly above 6/21/18's high).

Turkey's 10 year government note yield bottomed at 3.87 percent on 7/11/16. Its yield made an interim high on 1/11/17 at 6.09pc, but slumped to about 4.70pc on 9/8/17. After advancing to around 7.25pc in mid-May 2018, it dived to about 6.40pc later that month. As the nation faced a currency crisis, the Turkish note yield soared to 9.35pc on 8/13/18. Although yields for that instrument plummeted following that high, the current level around 7.30 percent stands far above its July 2016 and September 2017 troughs.

## RISING GOVERNMENT YIELDS: AMERICA, FIRST

"Agitation", jazz music composed by Miles Davis

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Given the major role of the United States in the interconnected international economy, focusing on American government yield trends themselves offers insight into the American interest rate situation in general and thereby provides guidance for international yield trends in general. In addition, concentrating on a handful of other variables related to interest rate marketplaces gives further perspective on American government and other yield trends.

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The double bottom in the US Treasury 10 year note yield, 7/5/12's 1.38 percent and 7/6/16's 1.32pc, underlines the probability that the major trend in UST yields is upward. In this context, note the long duration of the preceding major bear pattern in yields, which commenced with 9/30/81's heavenly 15.84pc, as well as the pattern of lower and lower noteworthy peaks from 1981 to 2014. After the record 9/30/81 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, and 1/2/14's at 3.05pc. Notably, the time difference between each of these pinnacles was roughly six or seven years. A reasonable guideline conjecture is that the duration of the UST 10 year yield ascent from its July 2016 major bottom will last at least six or seven years.

Watch 1/2/14's 3.05 percent yield (see also 6/16/03's low at 3.07pc). Yield support is around 2.65pc. Twice the 1.32pc major low is 2.64pc; half the Goldilocks Era summit (5.32pc on 6/13/07) is 2.66. Beneath that stands 2.00 percent; recall not only 9/8/17's important take-off point at 2.01pc, but also the bottom during the global financial crisis, 12/18/08's 2.04pc.

On 10/9/18, the UST 10 year note yield recently reached 3.26 percent (3.25pc on 10/5/18), very close in time to the noteworthy 9/21/18 (at 2941) and 10/3/18 (at 2940) tops in the S+P 500 (the UST touched 3.25pc on 11/7/18 as well). The UST two year note yield's recent high is 11/8/18's

2.97 percent; remember its noteworthy bottom at .50 percent on 6/24/16 (around the time of the UST 10 year's July 2016 major bottom). On 11/2/18, the UST 30 year yield reached 3.46pc; compare 7/11/16's bottom at 2.09pc.

The first important resistance range for the UST 10 year note above the 3.25 percent level is 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.

Most marketplace debt investors over the long run want a positive return relative to inflation. 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 challenge by the 10 year UST note to the 3.75-4.25pc barrier. The New York Fed's "Underlying Inflation Gauge" estimates trend CPI inflation is in a 1.9 percent to 3.1 percent range for September 2018. The St. Louis Fed's five-year, five-year forward inflation expectation rate climbed from 1.41pc in mid-2016 (6/17, 6/27, and 7/5/16) to 2.35pc on 2/2/18. Current levels (11/8/18's 2.22pc) are close to February 2018's high.

All else equal, the low US unemployment rate and the disappearance of America's output gap portend further Federal Reserve tightening. America's unemployment rate was merely 3.7 percent in October 2018. The Fed's September 2018 projection for the longer run unemployment rate (central tendency) is 4.3 to 4.6pc (though 2019's midpoint is 3.5pc). According to the International Monetary Fund (October 2018 World Economic Outlook database), the US no longer has an output gap as a percentage of potential GDP. The gap was about -4.8pc in 2009 during the global economic crisis, narrowing to -1.2pc in 2014. However, it narrowed to 1.1pc in 2018 (positive number, so no gap); the 2019 forecast is 1.6pc.

Watch credit spreads. The Moody's Baa corporate bond yield less that of the 10 year UST note is one benchmark (St. Louis Federal Reserve). That spread has widened only modestly relative to a noteworthy (and rather low) bottom. Compare 1/31/18's 1.56 percent valley with 11/1/18's 2.04pc height.

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US federal budget trends point to large future deficits and increasing debt levels as a percentage of GDP. See the Congressional Budget Office's "The Budget and Economic Outlook: 2018 to 2028" (for example, Summary Table 2; 4/9/18) and "The 2018 Long-Term Budget Outlook" (6/26/18).

Not only does America have significant internal divisions across various parameters (political ideology, economic principles, age, sex/gender, region, urban/rural, racial/ethnic background, religion). The sharp partisan politics (which are partly reflect these cultural divisions) likely will persist on the national legislative stage for at least the next couple of years. Populist agitation from diverse directions, whether "right" or "left" wing, will continue.

The Democratic House of Representatives probably will not compromise often on significant issues with the Republican Senate and President, including tax and spending ones. 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.

Looking forward, what probably will happen to United States government interest rates if foreigners are not significant net buyers of US Treasury debt? Or, suppose foreigners become net sellers of UST. US dollar weakness alongside rising US interest rates probably will dismay many foreign holders of US government securities.

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In the currency universe, most financial, political, and media storytellers concentrate on cross rates between two nations, such as the United States dollar versus the Chinese renminbi. However, analysis of the broad real trade-weighted effective exchange rates for a given country offers better insight into the overall situation for that nation's currency. For America, see the Federal Reserve Board's broad real trade-weighted US dollar yardstick (H.10; monthly average, March 1973=100; "TWD").

At times, rising United States Treasury interest rates can assist (inspire) appreciation in the broad real trade-weighted dollar. Falling American government yields sometimes can link to TWD weakness. However, history reveals that players must be very cautious about making generalizations regarding the US interest rate/US dollar relationship (including convergence/divergence and lead/lag issues). Much depends on numerous other entangled financial and political variables. These factors include the past, current, and anticipated economic growth rates and currency, monetary, and fiscal policies of key US trading partners around the globe.

In any case, the broad real trade-weighted US dollar ("TWD") has crucial support around 96.2 to 96.6 (96.6 was the March 2009 financial crisis pinnacle).

The broad real TWD currently is around very important resistance. Following July 2011's major bottom at 80.2, the TWD spiraled higher and eventually established an important interim summit at 101.1 in January 2016. It surpassed that with December 2016's 103.3/January 2017's 103.1 pinnacle. The TWD slumped to 94.6 in January 2018 (the time of many key advanced and emerging marketplace stock marketplace pinnacles around the globe, as well as the initial high in the S+P 500). The TWD thereafter climbed, reaching 100.8 in August 2018, close to January 2016's top and near to the Dec16/Jan17 one. September 2018's 99.2 and October 2018's 99.8 remain close to the August 2018 height.

The nominal broad TWD has daily data (Federal Reserve, H.10). The nominal broad TWD attained a high on 1/20/16 at 125.8. December 2016/January 2017 established the nominal TWD's pinnacle, 12/28/16 at 128.9 and 1/3/17 at 128.8. Though the nominal broad TWD slipped to around 115.2 on 1/25/18 and 2/1/18, it subsequently motored higher. An interim top transpired 8/15/18 at 126.6, but 10/31/18's Halloween high at 128.7 exceeds this and neighbors the December 2016/January 2017 summit (nominal TWD data available through 11/2/18). This rally in the nominal TWD above August 2018's height suggests that the broad real TWD has renewed its challenge not only to January 2016's top, but also its critical December 2016/January 2017 barrier.

## STOCK PRICE SLUMPS AND A GOVERNMENT NOTE YIELD DETOUR

The recent peak in the S+P 500 occurred on 9/21/18 at 2941; the final and key top was 10/3/18's 2940. Compare the timing of the UST 10 year government note high on 10/9/18 at 3.26 percent.

Put the timing of German and Chinese 10 year government note yield highs relative to their 2016 bottoms on the sideline for a moment.

Like the UST 10 year note, many other important advanced nation 10 year government note marketplaces achieved their yield highs to date (relative to their 2016 major bottoms) around early to mid-October 2018. Spain's 3/14/17 high at 1.95pc was an exception, but its 10/19/18 rate top level of 1.82pc is close to that. Yield highs in several emerging marketplace note playgrounds occurred prior to October 2018, but not very long before then. India's 2018 high occurred on 9/12/18's 8.23pc, and it made a second top, on 10/4/18 at 8.21pc. Brazil's high was 9/4/18 at 6.34pc, with Turkey's 8/13/18 at 9.35pc.

The S+P 500's autumn 2018 peak exceeded 1/26/18's important interim summit at 2873 by only 2.4 percent.

Significantly, global stock marketplaces "in general" reached their major pinnacles several months prior to the S+P 500, but at the same time as the S+P 500's noteworthy January 2018 high. The peak in the FTSE All-World Index, which includes developed and emerging stock marketplaces, was 1/29/18's 364.0. A later interim (and lower) high in the FTSE All-World Index occurred at 349.0 on 9/21/18, the day of the S+P 500's peak. Its low was 10/29/18's 310.3, about a 14.8 percent drop from its 1Q18 summit. Thus the S+P 500, due to its noteworthy falls since its September/October 2018 summit (and its drop beneath its 1/26/18 height), has joined in with (become part of) an overall global stock marketplace decline.

What about emerging marketplace stocks in particular? The MSCI Emerging Stock Markets Index (from Morgan Stanley; "MXEF") also peaked in first quarter 2018, on 1/29/18 at 1279. It made a minor high at 1053 on 9/21/18 alongside the S+P 500's significant top. The MXEF low since 1/29/18's 1279 occurred 10/30/18, a 27.3 percent collapse from January 2018's high.

The inability of the German and Chinese 10 year government notes to make new yield highs around the time of the October 2018 ones in the US Treasury note (and many other global 10 year government note benchmarks) is an important divergence within the global interest rate universe. In this context, let's now also review the significantly earlier timing of the German and Chinese 10 year government note yield peaks in conjunction with the overall price pinnacle in global stock marketplaces in late January 2018.

The German Bund's .81 percent yield peak occurred on 2/8/18, close in time to the important stock marketplace summits. China's attained its critical yield plateau somewhat earlier, on 11/22/17 at 4.04pc. However, China's final yield top, 1/18/18's 3.98pc, occurred near in time both to the first quarter 2018 equity marketplace highs and the 2/8/18 high in the German government note.

The German DAX stock marketplace has endured a precipitous fall of 18.7 percent from its 1/23/18 peak at 13597 to its 10/26/18 low at 11051. China's Shanghai Composite Index suffered an even bloodier crash over this time span. Following its 1/29/18 summit at 3587, it collapsed 31.7 percent to 10/19/18's 2449 trough. The time when these sharp falls in German and Chinese equity prices commenced thus links to the peaks in their 10 year government note yields. Germany and China not only are important nations for the global economy, but also arguably are especially vulnerable to global trade wars (the United States under the Trump Administration appears willing to engage in such battles).

Thus the falls in German and Chinese stocks since January 2018, when interpreted in conjunction with the timing of their 10 year note yield highs, arguably warns that a temporary yield high in the United States 10 year government note and other related government note instruments is in place or will be established relatively soon. Such an interruption (pause) in the overall long run major trend of rising US Treasury (and other key global government) yields probably will be temporary.

In any case, a ten percent fall ("correction") in the S+P 500 from its late September/early October 2018 peak equals 2647, a twenty percent plunge gives 2353, and a 33pc bear collapse 1959. The S+P 500 quickly tumbled 11.5 percent to its 10/29/18 low at 2604 on 10/29/18. This percentage fall closely paralleled the rapid 11.8pc dive from 1/26/18's 2873 to 2/9/18's 2533. A sustained fall in the S+P 500 beneath its late October 2018 low therefore probably would encourage "flight to quality" purchasing of US Treasury notes (and government securities in related safe haven countries) and thus lower yields.

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The broad S&P Goldman Sachs Commodity Index ("GSCI") peaked alongside the S+P 500, at around 504 on 10/3/18. Its early November 2018 low around 441 sank about 12.5 percent from that top. The broad GSCI is heavily petroleum-weighted. The high in NYMEX crude oil (nearest futures continuation) was 10/3/18's 7690; ICE Brent/North Sea crude oil's high (nearest futures) at 8674 also occurred 10/3/18.

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