**HUNTING FOR YIELD: THE THRILL IS GONE**

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BB King complains "The thrill is gone" in his song named after that lyric.

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## OVERVIEW AND CONCLUSION

Financial warriors in securities and other marketplaces always hunt for adequate yield (sufficient return) on their capital. Especially in Wall Street's stock and interest rate realms, the majority of institutions and individuals (not the market-makers) eagerly searching for yield are owners, thus initiating their positions from the buying side. Most of these owners on Wall Street and Main Street seeking wealth and economic security grant themselves or receive the honored cultural designation of "investor", with their long positions generally labeled as investments. Especially in stock and debt arenas, "investment" is deemed "good". On Main Street, homeowners likewise as a rule view their property as an investment. And since the appealing investment badge and related rhetoric excites interest and encourages action, such as buying and holding, Wall Street guides and their media and political comrades enthusiastically and liberally employ investment wordplay, especially in stock and interest rate territories. Given the persuasiveness of investment talk, many Wall Street wizards often extend the label to other asset classes such as commodities "in general", perhaps calling them "alternative investments".

Of course therefore on Wall Street, investors generally are happy (joyous, pleased) when asset prices rise (especially in stocks) on a sustained basis, and sad (depressed, unhappy, angry) when such prices decline. Thus for stocks, high and rising prices (and bull market trends) are "good", whereas low and falling prices (and bear markets) are "bad". However, investment rhetoric and devotion to ownership do not abolish price risk. So capital preservation matters too. Because broad, longer-run directional price patterns are not necessarily a one-way street, numerous investors during a noteworthy price decline fearfully run for cover, selling some or all of their positions (or at least not buying more for their portfolio, even an allegedly well-diversified one).

Moreover, increasing fears regarding whether economic growth will be adequate can make investors (and others) considerably more nervous about holding on to a given quantity of assets. Uncertainty itself (as well as price "volatility"), if sufficiently substantial, can help to inspire many to flee out of assets which now appear to be "too risky"!

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In any case, the bear marketplace trend in the S+P 500 which commenced in January 2022 (and related slumps in other advanced nation equity arenas) and significantly rising yields (falling prices) in the US Treasury marketplace (as well as in other sovereign and corporate debt landscapes around the globe) thus have disturbed, dismayed, and injured many investors (and other owners). That stocks and bonds have collapsed "together" in recent months is especially upsetting! Note also the long-running retreat in emerging marketplace stocks. Commodities "in general" have cratered from their first quarter 2022 highs. In recent months, even United States home prices have declined moderately. This scary financial carnage surely has substantially reduced financial net worth around the world, and especially within the consumer (household) sector. The US dollar, which is part of this capital destruction story, not only has remained very strong for quite some time, but also recently climbed to new highs.

In today's international and intertwined economy, the interrelated substantial price falls in the stock and bond marketplaces, and the potential for even greater weakness than has thus far appeared in home prices, plus a "too strong" US dollar, are a recipe for recession. The net worth destruction resulting from substantial price falls in these assets probably indicates a significantly greater probability of recession, not merely an extended period of mediocre real GDP growth (or stagflation), in America and many other leading economies, than most forecasters assert. Although commodities are not a substantial part of household net worth, their significant price slump in recent months not only confirms the price downturn in the S+P 500 and related stock marketplaces, but also warns of underlying economic feebleness. Note recent year-on-year declines in US petroleum consumption.

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"Marketplace Expectations and Outcomes" (9/5/22) restated the viewpoint of "Summertime Blues, Marketplace Views" (8/6/22): "Despite growing concerns about a United States (and global) economic slowdown or slump, and despite potential for occasional "flights to quality" into supposed safe havens such as the United States Treasury 10 year note and the German Bund, the long run major trend for higher UST and other benchmark international government yields probably remains intact." Regarding the S+P 500, the essays concluded: "Although the current rally in the S+P 500 may persist for a while longer, the downtrend which commenced in January 2022 probably will resume. The S+P 500's June 2022 low probably will be challenged."

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Marketplace history is not marketplace destiny, and convergence and divergence patterns between stocks, interest rates, and other arenas can shift, sometimes dramatically. However, despite the S+P 500's ferocious rally after 9/30/22's 3584 trough, it and other related stock marketplaces probably will fall beneath their recent lows eventually. The US Treasury 10 year note yield, given ongoing lofty inflation levels around the globe and the determined effort of the Federal Reserve and other central bankers to reduce inflation to acceptable heights, probably over time will climb higher, exceeding its recent high around four percent. Consumer price inflation probably will remain lofty for at least a few more months on a year-on-year basis. However, within that rising yield trend, UST prices occasionally may rally due to nervous "flights to quality".

A victorious fight against the evil of excessive inflation probably requires a recession. If a notable global recession emerges (or if fears regarding the development of one grow substantially), then central bankers probably will slow or even halt their current rate-raising program.

Suppose OPEC and its allies engineer a notable rally in petroleum prices from current levels which lasts for a while, or that the Russia/Ukraine war induces a renewed rally in energy (and perhaps other) commodity prices. Such ascents in commodities prices (if they indeed occur) will help to keep consumer prices high and thereby tend to induce central banks to sustain their current policy tightening (interest rate boosting) programs.

## THE FED AND ITS FRIENDS: AWAKENED TO INFLATION

The Federal Reserve sentinel and its central banking companions, after a very lengthy delay, finally recognized widespread evidence that substantial consumer price inflation was not a temporary or transitory phenomenon. To restore and preserve its inflation-fighting credibility and sustain its marketplace reputation, in recent months the Fed noisily has raised policy rates (and significantly reduced yield repression) and started to shrink its engorged balance sheet.

The Fed's need to manifest genuine loyalty to its legislative mandate of stable prices (which other central bankers have echoed) thus has provoked it to do some nipping, and even a little biting, of "investors" and other owners in the S+P 500 and other "search for yield" marketplaces such as corporate bonds and US dollar-denominated foreign sovereign debt. Fed Chairman Jerome Powell's 8/26/22 Jackson Hole, Wyoming speech ("Monetary Policy and Price Stability") further emphasized its rediscovered inflation-fighting enthusiasm. The now-vigilant Chairman heralded: "Inflation is running well above 2 percent, and high inflation has continued to spread through the economy." The Chairman trumpeted that the "overarching focus right now is to bring inflation back down to our 2 percent goal"; "Restoring price stability will take some time and requires using our tools forcefully"; "estimates of longer-run neutral are not a place to stop or pause"; this restrictive policy stance likely must be maintained "for some time"; after all, "The longer the current bout of high inflation continues, the greater the chance that expectations of high inflation will become entrenched." Note the dogged determination expressed by this trusty guardian!

The Fed's late August 2022 wordplay encouraged the previously existing trends of higher United States Treasury yields and declining prices for the S+P 500 and related search for yield (return) arenas such as emerging marketplace stocks, corporate bonds, and US dollar-denominated sovereign debt. Prices for commodities "in general" also withered.

Nevertheless, despite the substantial fall in the S+P 500 from its magnificent 1/4/22 peak at 4819, including its sharp decline from 8/16/22's 4325 interim top (and 8/26/22's 4203), the Fed continues to adhere to its inflation-fighting scheme. Note the Fed Vice Chairman's latest remarks, "Global Financial Stability Considerations for Monetary Policy in a High-Inflation Environment", a few days ago at a key Fed conference (9/30/22). Lael Brainard underlined: "Monetary policy will need to be restrictive for some time to have confidence that inflation is moving back to target [two percent]…we are committed to avoiding pulling back prematurely." So "in a high-inflation environment, monetary policy is restrictive to restore price stability and maintain anchored inflation expectations." And she declared: "monetary policymakers are taking a risk-management posture to guard against risks of longer-term inflation expectations moving above target, which would make it more difficult to bring inflation down."

In addition, the Fed's very recent Economic projections for the Federal Funds rate at the end of a given calendar year (Table 1, 9/21/22) underscore its determination to defeat "too high" inflation. The projections give a midpoint (central tendency) of 4.25 percent for 2022 (compare its June 2022 meeting projection of about 3.4pc) and 4.7pc for 2023. The Fed nowadays also is shrinking the size of its balance sheet by up to $60 billion in UST and $35bb in agency mortgage-backed securities each month.

At this Fed conference, Agustin Carstens, the General Manager of the Bank for International Settlements (an umbrella organization of central banks) likewise recommended that policymakers should maintain their campaigns to tighten monetary policy. The Financial Times (10/1/22, p3) quotes the BIS leader: "When you are flying an airplane, yes there might be some turbulence [but] you don't abort the direction of your flight unless you really face something completely unexpected."

## <u>THE US TREASURY YIELD VOYAGE</u>

"Midway this way of life we're bound upon,
I woke to find myself in a dark wood,

Where the right road was wholly lost and gone." Dante, "The Divine Comedy" ("Hell"; Canto I, lines 1-3)

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For a long time, the ostensibly observant and data-dependent Federal Reserve and its central banking and finance ministry friends, most players within Wall Street and Main Street investment churches (particularly in stock domains), and a majority of politicians gambled on the continuation of very low inflation ("stable prices") and related low interest rates. Few worried much about the consequences of gargantuan money printing (quantitative easing), ongoing yield repression, and massive debt creation.

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OECD inflation as measured by the Consumer Price Index for August 2022 soared a colossal 10.3 percent year-on-year, similar to July 2022's huge 10.2 percent year-on-year increase and June 2022's 10.3pc year-on-year leap (10/4/22; next release 11/3/22), thus continuing the ongoing substantial inflationary trend. Remember the OECD's average year-on-year inflation rate for calendar 2020 was merely 1.4pc, with that for calendar 2021 4.0pc. Excluding food and energy, the OECD's July 2022 CPI inflation jumped 6.7 percent.

The US consumer price index (CPI-U, all items; Bureau of Labor Statistics; see Tables 1 and 5; (9/13/22; next release 10/13/22) flew up 8.3 percent year-on-year in August 2022, following the hefty increases of 8.5 percent year-on-year in July 2022 and 9.1 percent year-on-year in June 2022. This inflation indicator's distressing climb has exceeded five percent year-on-year since May 2021. Compare December 2020's meager 1.4pc increase. In August 2022, the CPI-U excluding food and energy ascended a fearsome 6.3 percent year-on-year (up 5.9 percent year-on-year in both July and June 2022). The price index for personal consumption expenditures ascended 6.2 percent year-on-year in August 2022 (up 4.9pc year-on-year excluding food and energy), 6.4 percent year-on-year in July 2022 (4.7pc without food and energy), with June 2022 up 7.0pc versus June 2021 (Bureau of Economic Analysis, Table 11; 9/30/22).

Euro area consumer price inflation (HICP, all items) skyrocketed 10.0 percent year-on-year in September 2022 (Eurostat, 9/30/22).

Overall United States and global inflation, despite the slump in commodities prices in general from their March 2022/June 2022 pinnacles, probably will not drop substantially from current heights on a year-on-year basis for at least a few more months.

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Sustained low unemployment levels (especially when CPI-U inflation also is growing) can encourage rising wages. The US August 2022 unemployment rate remained low, standing at 3.7 percent. July 2022's 3.5pc matched February 2020's 3.5 percent valley, achieved before the start of the coronavirus pandemic (compare April 2020's monumental 14.7pc; Bureau of Labor Statistics; 9/2/22; 10/7/22 next release).

So what about the trend for America's nominal wage growth? Although nominal wage growth has lagged CPI-U inflation in recent months (and thus real wages have declined), the acceleration of nominal wages signals the risk that an increasing wage pattern may help to entrench rather high CPI-U and other inflation measures. According to the Atlanta Fed's "Wage Growth Tracker", the three month moving average of median (hourly; overall unweighted) nominal wage growth stood at 6.7 percent in both August and July 2022. Compare May 2021's 3.0pc. June

2022's elevation represents the high for the data series, which goes back to 1997. Compare the prior highs of 5.4 percent in June 1998 and November 2000.

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The major yield increase trend in the United States Treasury marketplace (use the UST 10 year note as a benchmark) embarked with 3/9/20's .31 percent bottom. Lows at .54 percent on 4/21/20 and .50pc on 8/6/20 confirmed this. The UST 10 year note yield soared after 8/4/21's 1.13pc low. The German Bund's yield pattern in recent years broadly has resembled that of the UST 10 year note, although this weathervane spent a long time beneath zero (negative yield).

| | **1Q20 Yield Bottom** | **Spring 2020 Yield Low** | **Later 2020 Yield Low** | **1Q21 Yield High** | **Aug 21 Yield Low** | **Recent Yield Highs** |
|---|---|---|---|---|---|---|
| **UST 10 Year** | .31 pc (3/9/20) | .54pc (4/21/20) | .50pc (8/6/20) | 1.77pc (3/30/21) | 1.13pc (8/4/21) | 3.50pc (6/14/22) 4.01 (9/28/22) |

The UST 10 year note yield eventually broke above late March 2021's interim high, attaining 2.06 percent on 2/11/22. Highlight that the S+P 500 peaked during this yield ascent with 1/4/22's 4819, with lower interim tops on 2/2/22 (at 4595) and 2/9/22 (at 4590).

Note that the UST 10 year yield's interim high on 6/14/22 at 3.50pc occurred very close in time to the S+P 500's 6/17/22 interim low at 3637. The UST 10 year's yield high (price low) at 4.01 percent on 9/28/22 stands adjacent to the S+P 500's 9/30/22 trough at 3584.

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Given past (since around May 2021), current, and probable near-term consumer price elevations and trends, US and other key government interest rates probably will climb above recent highs. All else equal, high (rising) inflation tends to lead to increases in US Treasury and other yields. Importantly, policy rates such as Federal Funds remain beneath both headline as well as core (leaving out food and energy) inflation yardsticks.

Despite its current inflation-fighting rhetoric, the devoted Fed's quest to rein in inflation has been somewhat gradual in the context of ongoing very elevated consumer price index statistics. The current Federal Funds level is at 3.00 to 3.25 percent. Compare CPI-U inflation levels over eight percent, with the core CPI-U (excluding food and energy) around six percent. The Fed catch-up adventure involves more work in the future. Following the Fed's 75 basis point increase in the Fed Funds target in its September 2022 gathering, many wizards expect the Fed will boost the Fed Funds height by another 75 basis points in its November 2022 meeting, but even a 3.75 to 4.00pc range still falls well beneath recent CPI-U elevations.

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The Fed's Economic projections for the Federal Funds rate at the end of a given calendar year (Table 1, 9/21/22) give a midpoint (central tendency) of 4.25 percent for 2022, 4.7pc for 2023, and about 3.9pc for 2024. The watchdog declares the misty "Longer run" PCE inflation level is 2.0 percent, with the Fed Funds rate for that horizon at 2.4pc. In any case, suppose the 10 year US Treasury note offers a real return of 50 basis points at year end 2022 relative to the Fed Funds level projection. Then it will yield nearly 4.8 percent, above its recent high around 4.0pc. For calendar 2023, a real return of 50 basis points relative to the anticipated Fed Funds level portends a ten year UST yield of about 5.2 percent.

Looking forward, suppose America's core CPI-U inflation dips sharply, yet remains persistently at four percent or higher. Assume the UST 10 year yield provides a real return of 50 basis points relative to this inflation measure. Then the US 10 year yield still sails above four percent, and perhaps by a noteworthy amount. Recall 6/13/07's yield top at 5.32 percent.

Note that the Fed's September 2022 Economic projections reflect a sharp markdown for US real GDP (midpoint of central tendency) for calendar 2022 and 2023 relative to the June 2022 forecast. The Fed's September 2022 prediction for calendar 2022 GDP growth is a paltry .2 percent (compare June 2022's 1.7pc estimate); it anticipates expansion of a meager 1.0pc in calendar 2023 (down from June 2022's roughly 1.7pc outlook). Thus the Fed clearly aims to tolerate very mediocre growth in its battle to halt and reverse the current dangerous inflation pattern.

Does the Fed's GDP perspective on the future, assuming still relatively high consumer price (and PCE) inflation constitute "stagflation"? And is eventual recession arguably likely despite the Fed's outlook? And for at least a while during that recessionary period, might inflation (even if it falls moderately from current levels) remain relatively high relative to an inflation ("stable prices") objective around two percent?

The Fed assembles on 11/1-2/22 and 12/13-14/22. Looking forward after September's conference, unless the US and global economy weakens very substantially, further Fed Funds increases likely loom. The important Annual Meetings of the International Monetary Fund and World Bank Group run 10/10-16/22. "A key message is that we may be on the cusp of a new inflationary era." ("The return of inflation", speech by Agustin Carstens, the General Manager of the Bank for International Settlements; 4/5/22).

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Large and growing credit demand (picture the government, corporate, and household sectors), all else equal, tends to increase interest rates. Over the long run, despite increased inflation-fighting inclinations by the Federal Reserve and much of the rest of the global central banking fraternity, debt levels and trends may make it difficult to achieve their inflation target goals.

America and many other countries currently have high overall debt levels as a percentage of GDP. For the United States, the significant probability (and related expectations) of substantial further growth in the government debt sector burden over the next few decades probably encourages a trend toward higher UST yields.

## RISING RATES, RUNNING FOR COVER

"Apocalypse Now" (Francis Ford Coppola, director), Colonel Kurtz (played by Marlon Brando): "The horror…the horror".

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If prices for assorted "search for yield (return)" marketplaces such as stocks (picture the S+P 500) and lower-grade debt securities can climb "together" (roughly around the same time), they also can retreat together.

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After the S+P 500's titanic peak in January 2022, prices tumbled in that playground and related financial arenas (such as emerging marketplace stocks; corporate bonds and US dollar-denominated emerging market sovereign debt); avid "searches for yield/return" transformed into fearful "runs for cover". Consumer (Main Street) and small business confidence destruction interrelated with capital destruction (loss of money) by "investors" and other owners (which include many "speculators" and "traders") in stock and interest rate securities marketplaces.

In general, price trends for assorted "search for yield/return" interest rate arenas (such as corporate bonds) probably will continue to converge with the S+P 500.

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Let's review a benchmark for United States corporate interest rates travels since first quarter 2020. Also, investigate emerging marketplace sovereign debt arenas. The Moody's seasoned Baa corporate bond yield is based on bonds with maturities of 20 years and above (statistics below from the St. Louis Fed, data through 9/30/22). The "EMB" ETF, from iShares (BlackRock)/J.P. Morgan, provides exposure to United States dollar-denominated government bonds issued by emerging market countries. The EMB includes over 30 countries. The EMB is quoted in price terms, so falling prices reflect rising yields. Keep price trends for the S+P 500 and other stock marketplaces in view, as well as an eye on price trends for commodities in general.

At the dawn of the coronavirus pandemic disaster, the S=P 500 peaked at 3394 on 2/19/20, with a second notable and lower high on 3/3/20 at 3137. The Baa established an early 2020 yield low (price high) on 3/6/20 at 3.29 percent. The EMB attained its price highs (yield lows) around then, on 2/21/20 at 117.20 and 3/4/20 at 117.08. Their prices crashed alongside global stock marketplaces to their March 2020 major bottoms.

| | **1Q20 Price Low** | **Price High** | **Interim Price Low** | **Price High** | **Price Low** | **Summer 2021 (and Later) Price Highs/Yield Lows** | **Recent Yield Highs** |
|---|---|---|---|---|---|---|---|
| **Baa** | 5.15pc (3/20/20) | 3.12 (8/6/20) | 3.52 (10/5/20) | 3.11 (12/31/20) | 3.88 (3/18/21) | 3.15 (8/2/21) 3.15 (9/14/21) 3.13 (11/9/21) 3.16 (12/3/21) | 5.48pc (6/14/22) 6.07 (9/30/22) |

Recall the UST 10 year's 8/4/21 interim yield low at 1.13 percent. Note the rising yields in the Baa and EMB following summer/end year 2021. The Baa's yield high since summer 2021, 9/30/22's 6.07 percent, decisively breaks through 3/20/20's yield top resistance.

| | **1Q20 Price Low** | **Price High** | **Interim Price Low** | **Price High** | **Price Low** | **Summer 2021 (and Later) Price Highs/Yield Lows** | **Recent Yield Highs** |
|---|---|---|---|---|---|---|---|
| **EMB** | 85.00 (3/18/20) | 114.65 (8/11/20) | 109.20 (9/24/20) | 116.09 (1/4/21) | 106.70 (3/8/21) | 113.64 (8/31/21) 111.08 (11/9/21) 109.70 (12/13/21) 108.73 (1/3/22) | 81.87 (7/14/22) 78.59 (9/27/22) |

105.83
(2/2/22)
103.51
(2/16/22)
98.41
(3/17/22)
92.62
(5/27/22)

The EMB collapsed 32.3 percent from 1/4/21's 116.09 to 9/27/22's low. Note the EMB's pattern of lower interim price highs since January 2021, which resembles the picture of emerging marketplace stocks in general, which peaked in mid-February 2021.

The S+P 500 made a notable though temporary low on 6/17/22 at 3637 (see the Baa's 6/14/22 interim yield high), with an important second trough on 7/14/22 at 3722 (compare the timing of the EMB's 7/14/22 minor yield high). The EMB advanced 10.8 percent from 7/14/22's trough to 8/11/22's 90.71 high. Its renewed price retreat (yield increase) from 8/11/22 began shortly before the S+P 500's interim top on 8/16/22 at 4325.

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The rising yield trend in US corporate as well as emerging marketplace sovereign US dollar-denominated bonds since summer 2021, when interpreted in the context of the UST 10 year note's similar pattern (and American and international inflation jumps), reflected a major and sustained climb in overall global interest rates. The dangerous climbing yield (falling price) linked to the bear moves in the S+P 500 and other key stock marketplaces. This pattern of higher yields probably will continue to undermine global stock prices.

## GROWING FEARS IN STOCK LAND

Captain Edward John Smith, the captain of the ocean liner "Titanic", which sank on its maiden voyage on April 15, 1912, after hitting an iceberg, declared in 1907: "I never saw a wreck and never have been wrecked nor was I ever in any predicament that threatened to end in disaster of any sort."

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Marketplace history is not marketplace destiny, either entirely or even partly. Relationships between marketplaces and variables can change, sometimes dramatically. Very long run American marketplace history nevertheless shows that substantially climbing United States interest rates in important benchmarks such as the US Treasury 10 year note have preceded noteworthy peaks and led to bear trends in key stock marketplace signposts such as the Dow Jones Industrial Average and the S+P 500. Sometimes a yield climb, after preceding a stock marketplace top, then retreated; yet in some cases yields marched even higher after the equity peak.

Quite some time prior to Russia's 2/24/22 attack on Ukraine, rising interest rates and tumbling emerging equity marketplaces warned that the S+P 500 probably would fall significantly. "Emerging Marketplaces, Unveiling Dangers" (12/2/21) concluded that "the S+P 500 probably has established a notable top or soon will do so". "Paradise Lost: the Departure of Low Interest Rates" (2/9/22) stated: "The S+P 500's stellar high, 1/4/22's 4819, probably was a major peak; if its future price surpasses that celestial height, it probably will not do so by much."

Sustained rising US (and global interest rate) yields led to the majestic and joyful 1/4/22 pinnacle at 4819 in the S+P 500. UST 10 year yields began rising in early March 2020, accelerating upward following 8/4/21's 1.13 percent trough as American (and worldwide) consumer price inflation became very significant. Following the S+P 500's glorious January 2022 summit (focus also on the descending pattern of lower interim highs after that peak), it collapsed 25.6 percent to 9/30/22's 3584 low (recall the 3588 (9/2/20)/3550 (10/12/20) interim highs around two years ago), fairly near 2/19/20's pre-coronavirus pandemic peak at 3394. This dreadful price decline undoubtedly dismayed stock investors and other owners.

The S+P 500's 6/17/22 interim low at 3637 occurred only three days after the UST 10 year note's 3.50 percent yield interim top. The S+P 500 thereafter made a minor low, 7/14/22 at 3722 (remember the earlier interim low at 3723 on 3/4/21). The UST 10 year's yield high (price low) at 4.01 percent on 9/28/22 bordered the S+P 500's 9/30/22 trough at 3584 (which stood close to 6/17/22's 3637 depth). Though the UST 10 year yield has slipped since 9/28/22, a renewed yield increase moving toward (and especially above) four percent probably will propel the S+P 500 lower.

Spotlight the upward move in the UST 10 year yield from 8/2/22's interim low at 2.51 percent in conjunction with the S+P 500's rapid retreat since 8/16/22's 4325 interim high (including its nosedive from 8/26/22's 4203, the day of the Fed Chairman's Jackson Hole speech). This rising yield pattern in America's UST field (and in interest rates around the globe) probably will continue to place downward pressure on US and other stock marketplaces.

| | **1Q 2020 High (date)** | **1Q 2020 Low (date)** | **Interim High** | **Take-Off Low (date)** | **Subsequent Highs (to date)** |
|---|---|---|---|---|---|
| **S+P 500** | 3394 (2/19/20) | 2192 (3/23/20) | 3588 (9/2/20) | 3209 (9/24/20) | 4819 (1/4/22) |
| | 3137 (3/3/20) | | | 3234 (10/30/20) | 4637 (3/29/22) |
| | | | | | 4513 (4/21/22) |
| | | | | | 4308 (4/28/22) |
| | | | | 3637 (6/17/22) | 4178 (6/2/22) |
| | | | | 3722 (7/14/22) | 4325 (8/16/22) |

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The Dow Jones Industrial Average peaked 1/5/22 at 36953. Its horrific bear slump down to its low to date, 9/30/22's 28716, reached 22.3 percent. Significantly, the DJIA sank beneath its pre-coronavirus summit, 2/19/20's 29569.

URTH, an iShares (Blackrock) stock ETF, tracks investment results of developed market equities. The US represents about 68.4 percent of the index (6/30/22). URTH peaked on 11/8/21 at 136.75 (not long before Bitcoin's monumental pinnacle on 11/20/21 at 69000), making a double top with 1/4/22's 136.69. The low depth to date, 9/30/22's 99.90, mournfully plummets 27.0pc from the summit. An ominous sign for stock marketplace bulls appeared: URTH ventured beneath its

2/19/20 major high at 102.28. Although the DJIA and URTH happily rallied after 9/30/22's lows, will these benchmarks manage to stay above their February 2020 crests?

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In the movie "Caddyshack" (Harold Ramis, director), Judge Smalls chirps: "It's easy to grin When your ship comes in And you've got the stock market beat."

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Wall Street and Main Street stock investors (and other equity owners) of course love stock marketplace bull moves. They also generally hate deflation, and they also probably do not want inflation to be "overly high" for "too long". However, most stock owners probably do not want the Fed's fierce effort to subdue "too high" inflation to become too rabid and thereby "overly injurious" to stock prices.

In practice, many owners of American stocks may decide a ten percent price decline ("correction") is livable, at least for a while. However, a sustained bear move of 20 percent or more in an iconic benchmark such as the S+P 500 probably would trouble them greatly. A ten percent slide from 1/4/22 is 4337, a 20pc retreat gives 3855. A 25pc nosedive is 3614, around recent lows. A vicious 33 percent or more collapse from a major high probably will terrify not only many investors in US stocks, but also will upset their economic and political allies.

Prior to the first quarter 2020 slump in the S+P 500, the Federal Reserve often talked and acted to support equity prices (and the economy) when American stock prices tumbled downhill about twenty percent, the conventional definition of a stock bear trend. However, note the Fed's recent rhetoric signaling its inflation fight (including 8/26/22's Jackson Hole sermon), as well as its unwillingness to support the S+P 500 when it eroded nearly 25pc by mid-June 2022. As "Marketplace Expectations and Outcomes" (9/5/22) stated: "The Fed therefore probably will not seek to support the S+P 500 if it revisits 6/17/22's 3637 or a height slightly beneath that."

Recall the 35.4 percent decline in the S+P 500 from 2/19/20's 3394 to 3/23/20's 2192 as the coronavirus pandemic emerged. During that awful shipwreck in the S+P 500 (and other stocks and search for yield marketplaces), as well as in the US and global economy, the Federal Reserve (massive monetary easing by it and other central bankers) and politicians (gigantic deficit spending) resolutely moved to rescue the situation and restore confidence. Therefore, if the S+P 500 declines roughly 33 percent from its January 2022 pinnacle, and if the US economy shows additional signs of weakness (will GDP keep declining), the Fed probably will talk and act to halt that erosion in stocks and the economy. For example, it may suggest smaller or slower rate rises in the Federal Funds rate than most marketplace observers currently expect.

A 33 percent collapse from 1/4/22's 4819 peak equals 3209. Recall the interim troughs at 3209 on 9/24/20 and 3234 on 10/30/20, as well as 6/8/20's 3233 minor top. Above this 33pc decline height, watch a price band bordering it, running around 3405 to 3300. The S+P 500 crashed dramatically from 2/19/20's 3394 pinnacle; during its major bull charge up from 3/23/20's major bottom at 2192, there remains a price gap between 3405 (11/4/20 low) and 3389 (11/3/20 high). Another gap exists between 3336 (11/3/20) and 3330 (11/2/20). A traumatic 50 percent crash in the S+P 500 from 1/4/22's summit is 2410, fairly close to March 2020's major bottom.

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Monitor housing marketplace indicators alongside stock trends. Sustained declines in home prices diminish consumer net worth and thus damage consumer confidence. American home prices in general enjoyed a meteoric ascent during calendar 2021 and until around mid-year 2022. The sales price of United States existing single-family homes attained its recent high in June 2022 at $420,900. However, August 2022's $396,300 unfortunately deteriorates about 5.8 percent relative to June 2022's top (National Association of Realtors). Higher mortgage rates make potential home buyers unhappy, right? Though August 2022's 3.2 months of inventory supply is not excessive, it races decisively above January 2022's 1.5 months. Moreover, total existing single-family home sales tumbled 19.2 percent year-on-year in August 2022.

The weathervane NAHB/Wells Fargo National Housing Market Index retreated a lot in recent months. Compare April 2022's 77 with August 2022's 49 and September 2022's 46. April 2020's 30 was the coronavirus period bottom, November 2020's 90 the subsequent summit.

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As a footnote, suppose the S+P 500 does not move up or down far relative to current levels ,and that high consumer price inflation persists (and significantly exceeds dividend payouts) for an extended time span. This situation will displease many stock owners, because since stock prices of course are quoted in nominal terms, they will be losing money from the real return vantage point.

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"EEM" is the iShares MSCI Emerging Stock Markets ETF. It covers over 800 large and mid-size companies. Despite Mainland China's global economic power, most analysts classify it as an emerging market nation from the economic perspective. It possesses a 35.2 percent portion of the EEM (BlackRock's iShares website, 6/30/22).

| | **1Q 2020 High (date)** | **1Q 2020 Low (date)** | **Interim High** | **Take-Off Low (date)** | **Subsequent High (to date)** |
|---|---|---|---|---|---|
| **EEM** | 46.32 (1/13/20) | 30.10 (3/23/20) | 45.56 (8/28/20) | 42.29 (9/25/20) | 58.29 (2/16/21) |
| | 44.84 (2/12/20) | | | 44.41 (10/30/20) | 56.18 (6/1/21) |
| | 42.08 (3/3/20) | | | | 55.62 (6/28/21) |
| | | | | | 53.58 (9/7/21) |
| | | | | | 52.62 (10/20/21) |
| | | | | | 52.14 (11/15/21; compare URTH top) |
| | | | | | 50.89 (1/12/22; S+P 500 top 1/4/22) |
| | | | | | 50.11 (2/10/22) |
| | | | | | 46.78 (4/4/22) |
| | | | | | 43.23 (6/6/22) |
| | | | | 38.05 (7/14/22) | 41.20 (8/11/22) |

Rising yields in emerging marketplace debt securities apparently helped lead to price peaks for and subsequent weakness in emerging stock marketplaces (EEM). Stocks for these developing nations built a framework of lower and lower interim highs since February 2021. The higher yield pattern since around August 2021 in both advanced and emerging marketplace debt domains encouraged further price drops in the emerging marketplace stock jungle. Compare the timing of the late summer 2021 and November/December 2021 price drop-off points in emerging marketplace debt provinces with interim highs in emerging stock marketplaces, including the EEM's 50.89 on 1/12/22. Emphasize not only the UST 10 year note's long run campaign of rising yields since March 2020, but also the arrival of the upward stage beginning with the UST 10 year's early August 2021 trough at 1.13 percent. These debt and EEM price and time relationships intertwine with the timing of the S+P 500's heavenly 1/4/22 peak at 4819 (about one week before the EEM's 1/12/22 interim high).

The EEM's low in its bear move to date since 2/16/21's 58.29 crown is 9/29/22's 34.72, a heart-rending 40.4 percent crash. Although the S+P 500's summer 2022 rally broke above its minor top of early June 2022, the EEM's did not. The EEM deteriorated quickly from 8/26/22's 40.96. In today's interconnected global economy, the massive downhill move in the EEM is a bearish omen for the S+P 500.

## US DOLLAR MANEUVERS

A "too strong" United States dollar intertwined with ongoing price declines in both emerging marketplace equities and US dollar-denominated sovereign debt securities (both emerging marketplace stock and debt prices peaked in first quarter 2021). The very strong dollar and price slumps in emerging marketplace securities have helped to undermine the S+P 500.

In recent months, the United States dollar remained very strong and UST 10 year note yields advanced above their mid-June 2022 highs, which encouraged weakness in emerging marketplace dollar-denominated sovereign (and corporate) debt securities and stocks. Note the relatively minor rally in emerging marketplace stocks in comparison to that in the S+P 500 after mid-July 2022.

The strong (or "too strong") US dollar, especially in an era of ascending interest rates for US dollar (and other) debt securities likely assisted price weakness in emerging nation (and other foreign marketplace) corporate and sovereign debt denominated in US dollars. In this context, higher yields in emerging marketplace debt help to weaken emerging marketplace stocks.

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The Federal Reserve releases a real Broad Dollar Index (H.10; January 2006=100; monthly average; 10/3/22 release) as well as a nominal Broad Dollar Index (daily data; 10/3/22 latest release; 9/30/22 most recent datapoint) covering both goods and services.

| . | **1Q20 High (date)** | **Key Low Level (date)** | **Percent Fall from 1Q20 High** | **Next Highs (date)** | **PC Rally from 2021 Low** |
|---|---|---|---|---|---|
| **Nominal Broad Dollar Index** | 126.1 (3/23/20) | 110.9 (1/6/21) 110.5 (6/1/21) | 12.4pc | 124.1 (7/14/22) 123.7 (8/22/22) 128.6 (9/27/22) | 16.4pc |

Note the initial nominal BDI low in early January 2021 (1/6/21) occurred close in time to the EMB price high (yield low) on 1/4/21, as well as the emerging marketplace stocks pinnacle on 2/16/21.

Sometimes (but not always) the Broad Dollar Index has attained key marketplace tops alongside important bottoms in the S+P 500. For example, recall the real Broad Dollar Index peak at 101.6 in March 2009 in connection with the S+P 500's major low on 3/6/09 at 667. The S+P 500 bottomed on 2/11/16 at 1810 (1/20/16 at 1812); compare the real BDI's January 2016 interim high at 107.5 (final top at 110.0 in December 2016, though). The S+P 500 made a significant trough on 12/26/18 at 2347; November 2018's real BDI interim top at 107.8, though not a final high in the major bull move of the real BDI, was not exceeded by much for quite a few months (September 2019 minor high at 108.6), until March 2020/April 2020. Many on Wall Street and Main Street surely recognize that the nominal Broad Dollar Index's 3/23/20 pinnacle at 126.1 coincided with the S+P 500's 3/23/20 major low at 2192.

The real Broad Dollar Index ("BDI") has been very strong in recent months. In September 2022, it appreciated further, reaching 120.2 (August 2022 is 117.1, July 2022's 117.6), smashing 6.0 percent over April 2020's 113.4 summit. The nominal BDI in mid-July and late August 2022 approached its late March 2020 high, recently shooting over it to reach 9/27/22's 128.6.

The September 2022 highs in the real and nominal Broad Dollar Indices coincide with (interrelate with; confirm) the end September 2022 lows in the S+P 500 (and other search for yield marketplaces) and the UST 10 year note yield high around four percent.

Note the timing of the recent cross rate spike lows of the British Pound and Chinese Renminbi against the US dollar: 1.035 BP/USD on 9/26/22 (Euro FX low occurred 9/28/22 at .954) and 7.250 USD/Renminbi.

Even if the real BDI falls some from September 2022's 120.2 high, staying significantly above April 2020's 113.4 prior top probably will be a bearish factor for the "hunt for yield/return" securities playgrounds.

## THE WILD WEST OF COMMODITIES

A character in the movie "The Deer Hunter" (Michael Cimino, director) asks: "Did you ever think life would turn out like this?"

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Assorted commodities of course have their own supply/demand profiles. Of course in practice, not all individual commodities necessarily trade "together" (in the same direction, around the same time span). Price and time trends for various commodities are not always the same. One marketplace may be in a bull trend, another in a less bullish, sideways, or bear pattern. Thus price trends over a given time horizon for a given commodity group (such as the "overall" petroleum complex) or a member within it (such as gasoline or diesel fuel) can venture further in a given direction than, or indeed have an opposite marketplace trend from, that of another commodity sector (such as agriculture "in general").

In recent years, numerous marketplace generals and their lieutenants have included commodities "in general" as a worthy member in their compelling arsenal of asset classes. Enlist the broad

S&P GSCI as a benchmark for commodities "in general", although the GSCI is heavily petroleum-weighted.

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History indicates that over the long run, the S+P 500 and commodities in general tend to travel together (in the same direction, around the same time). Often major highs (major bottoms) for commodities in general (broad S&P GSCI) and the S+P 500 occur around the same time.

Traders nevertheless must beware of price and time divergence (significant leads and lags) between commodities and the S+P 500. For example, in 2007-08, the high in the S+P 500 time and price pattern diverged from and preceded that in commodities by several months. At the dawn of the 2007-09 global economic crisis, the S+P 500 peaked on 10/11/07 at 1576. The broad GSCI peaked about nine months later, on 7/3/08 at 894. ICE Brent/North Sea crude oil attained its pinnacle on 7/11/08 at 14750. Yet note that these July 2008 major highs in the GSCI and petroleum occurred not long after the S+P 500's final top, 5/19/08's 1440.

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The S+P 500 peaked in January 2022, the broad GSCI in early March 2022. The S+P 500's 1/4/22 pinnacle preceded that of the overall commodities complex (broad GSCI on 3/8/22 at 853.3) by about two months. This represents relatively modest divergence between those marketplace realms from the time parameter. After around March 2022, the S+P 500 (note its lower interim high on 3/29/22 at 4637) and broad GSCI price trends tended to converge, usually (roughly) moving lower together.

Prices for commodities in general climbed substantially after December 2021 (Russia invaded Ukraine 2/24/22), magnifying inflation concerns and levels and thus assisting the price decline in global stock marketplaces. Though commodities peaked in early March 2022, on balance they remained quite high until around mid-June 2022.

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| . | **1Q 2020 High (date)** | **1Q 2020 Low (date)** | **Nov 2020 Take-Off Low (date)** | **Take-Off Points** | **Highs (to date)** |
|---|---|---|---|---|---|
| **Broad S&P GSCI** | 453.2 (1/8/20) | 218.0 (4/21/20) | 333.1 (11/2/20) | 509.1 (12/2/21)<br>522.3 (12/20/21)<br>595.2 (1/24/22)<br>627.7 (2/9/22)<br>632.1 (2/18/22)<br>648.0 (2/25/22)<br>679.3 (3/15/22)<br>632.9 (7/14/22) | 853.3 (3/8/22)<br>825.4 (6/8/22)<br>705.3 (7/29/22)<br>703.2 (8/29/22) |

Regarding increases in the US and OECD's consumer price measures since their troughs around end 2020, remember the timing of the fourth quarter 2020 take-off lows for the GSCI and especially the oil complex. After around late calendar 2021, encouraged by the threat and eventual reality of the Ukraine/Russia war, sharply rising prices for commodities in general, and food and fuel in particular, helped accelerate consumer price inflation in the United States (see the CPI-U), the OECD, and elsewhere. Substantial price increases in the commodities theater thereby severely wounded Main Street consumer confidence.

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The broad S&P GSCI collapsed 20.4 percent from its 3/8/22 top to 3/15/22's 679.3. However, it rebounded impressively. Thus prices for the overall commodities complex remained lofty in early June 2022. After 6/8/22's 825.4, the GSCI resumed its decline, attaining a temporary trough at 632.9 on 7/14/22, down 25.8 percent from March 2022's peak. Relative to the time of the GSCI's 6/8/22 interim top, note the S+P 500's 6/2/22 interim high at 4178, as well as the EEM's on 6/6/22 at 43.23. Note that the GSCI's 7/14/22 low thus occurred on the same day as the S+P 500's second trough (at 3722), the EEM's interim low at 38.05, and the nominal Broad Dollar Index's interim high at 124.1.

The GSCI rallied 11.4 percent from 7/14/22 to 7/29/22's 705.3 (and 8/29/22's 703.2, around the time of the Fed Chairman's speech). However, the GSCI then anxiously retreated to its recent low on 9/28/22 at 591.8, a 30.7 percent descent from March 2022's peak, a disturbing bear move for commodities "investors" and other owners of this "alternative asset class".

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The significant price decline in commodities in general following the second high on 6/8/22 at 825.4 down to 7/14/22's 632.9 arguably encouraged the interim price rallies in the S+P 500 and related search for yield marketplaces. This renewed slide in the overall commodities field (especially the petroleum complex) following 3/8/22's major high at 853.3 probably mitigated inflationary concerns of some marketplace participants.

The GSCI's 7/14/22 low at 632.9 rested near its pre-Ukraine invasion take-off points on 2/9/22 at 627.7 and 632.1 on 2/18/22. The broad GSCI resumed its decline from 705.3 (7/29/22)/703.2 (8/29/22) alongside the fall in the S+P 500 from 8/16/22's 4325 (and 8/26/22's 4203). Don't forget the 8/26/22 date of the Fed Chairman's Jackson Hole speech in this context.

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Since over the long run, major trends in the S+P 500 and commodities in general tend to converge, substantial bearish moves in the broad GSCI beneath its 10/25/21 high (9/28/22 low) probably will lead to (or confirm) declines in the S+P 500.

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Despite its bloody decline to 9/28/22's 591.8, will the GSCI revive and manage to remain above the 10/25/21's crucial high at 599.9 (and 1/24/22's important take-off point at 595.2, only a few weeks before Russia's invasion of Ukraine)? ICE Brent/North Sea crude oil (nearest futures continuation) very recently traveled beneath its critical 10/25/21 top at 8670 (and 10/3/18's 8674 high) attaining a low at 8365 on 9/26/22. Note that very recent news about a potential OPEC+ production cut (for example, see the Financial Times, 10/3/22, p1) surfaced around this time. A noteworthy and sustained rally in the petroleum complex (whether due to OPEC+ decisions, developments in the Russia/Ukraine war, or otherwise) probably will help to keep the GSCI above its 10/25/21 (and 1/24/22) support.

Given the current convergence pattern between the GSCI and the S+P 500, a petroleum rally might encourage (parallel) an upward move in the S+P 500.

However, if such a notable petroleum rally occurs, over time that will tend (all else equal) to keep consumer price inflation (CPI-U, for example) high. High inflation will in turn tend to keep UST and other interest rate yields elevated, and this interest rate situation probably will place downward pressure on S+P and other stock marketplaces. That scenario thereby would display price divergence (even if it probably would be temporary; recall 2007/08) between commodities and stocks, with the GSCI rallying (or at least being relatively strong) and the S+P 500 falling.

In any case, looking forward for a few more months from now, if the GSCI does not sustain a significant break beneath its October 2021 high and challenge its December 2021 elevations around 509.1/522.3, commodities still will contribute to some extent to noteworthy year-on-year consumer price inflation in the CPI-U and similar signposts.

Arguably the substantial price slump in the GSCI and the petroleum complex in recent months not only confirms (parallels) declines in the S+P 500 (and emerging marketplace stocks), but also reflects slowing GDP (due to recessionary forces) around the globe. Note that the recent four-week average for the week ending 9/23/22 for United States total petroleum products supplied is down 3.1 percent year-on-year (Energy Information Administration).

Suppose the GSCI falls significantly beneath the 599.9 (10/25/21)/591.8 (9/28/22) range. That probably will even more clearly warn of (confirm) economic weakness. A sustained breach of that GSCI range might persuade some equity bulls that inflation has been or soon will be tamed, and that the Fed consequently may not boost rates as much. Nevertheless, commodities obviously are not the only source of consumer price (and other) inflation. Given substantial current consumer price inflation (including in core inflation, which excludes food and energy), CPI-U inflation might not drop substantially (at least for a while) unless a notable recession emerged.

## BITCOIN AND S+P 500 PRICE PATTERNS

In recent years, cryptocurrency marketplaces have become another field appealing to some search for yield participants (especially Main Street fortune-hunters). As they do in stocks and other financial domains, such retail marketplace investment pilgrims typically enter (establish) positions from the buying (long) side. Increasingly, Wall Street and the financial media (and regulators) have paid attention to cryptocurrencies. Bitcoin is a key domain within the often-enthralling cryptocurrency playground.

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| | **1Q 2020 High (date)** | **1Q 2020 Low (date)** | **Peak (or Interim High)** | **Recent Take-Off Low (date)** | **Subsequent High (to date)** |
|---|---|---|---|---|---|
| **Bitcoin** | 10769 (2/13/20) | 3926 (3/13/20) | 69000 (11/20/21)<br>52100 (12/27/21)<br>48237 (3/28/22) | 17579 (6/20/22)<br>18892 (7/13/22) | 25214 (8/15/22) |

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Note the roughly similar timing shifts (trend changes) since first quarter 2020 for Bitcoin and the S+P 500.

As the coronavirus pandemic emerged, the S+P 500 made a major high on 2/19/20 at 3394; Bitcoin attained an important interim top shortly before then, on 2/13/20 at 10769. Don't overlook the similar timing of the emerging stock marketplace peak, EEM's 1/13/20 summit at 46.32. Bitcoin's major bottom on 3/13/20 at 3926 slightly preceded the S+P 500's major low on 3/23/20 at 2192.

Bitcoin's record peak occurred on 11/20/21 at 69000, a few weeks before the S+P 500's major high in January 2022. Bitcoin attained an important second top on 12/27/21 at 52100, very close in time to the S+P 500's 4819 summit. What about Bitcoin's later and lower interim high on 3/28/22 at 48237? That marketplace top occurred close in time to the S+P 500's 3/29/22 interim high at 4637.

Bitcoin's important recent low, 6/20/22's 17579 (beneath 12/18/17's 19787 high), neighbored the S+P 500's 6/17/22 trough at 3637. Bitcoin rallied further from 7/13/22's 18892 trough, reaching 25214 on 8/15/22 (compare the time of the S+P 500's August 2022 interim top), a 43.4 percent spike from its 6/20/20 depth. Main Street money (buyers) moving into Bitcoin, small capitalization stocks, and the S+P 500 during June and July 2022 probably helped to rally these marketplaces. Though Bitcoin fell significantly from 8/15/22's height, it remains above 6/20/22's low (18158 low 9/22/22).

Further price slumps in Bitcoin probably will encourage (confirm) price declines in the S+P 500.

## YIELD CURVES, INFLATION EXPECTATIONS, AND RECESSION WARNINGS

In the film "The Treasure of the Sierra Madre" (John Huston, director), a wise experienced gold prospector states: "I know what gold does to men's souls."

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Definitions and application of cultural terms such as "recession" can vary. In any event, capital destruction (and thus decreased consumer net worth) via painful bear price trends in stocks and interest rate marketplaces (and recent weakness in US home prices) and the likelihood of continued resolute central banking efforts to kill off "too high" inflation, as well as other entangled phenomena warn of a significant probability of a recession involving notable declines in real GDP and rising unemployment in America and elsewhere.

Take a look at the Federal Reserve Bank of New York's US Treasury 10 year bond less three month bill spread history going back to 1959 (NY Fed website). The statistics and graphics for the spread trend in the context of recessions display a tendency (not an absolute rule). Assume the starting point of a positively sloped yield curve (UST 10 year rates greater than the three month T-bill rate; monthly average; bond equivalent basis). The apparent guideline has two aspects occurring prior to the start of a recession. First, a substantial (at least 150 basis points, but sometimes it has exceeded 300bp) move over an extended time period to a substantially less positive yield curve occurs. Second, the yield curve moves into negative territory (T-bill yield exceeds 10 year UST yield), sometimes only slightly). However, even if the spread curve does not become negative, but only very close to flat (as in December 1959's +.09 basis point spread preceding the recession around 1960), that arguably still can warn of recession.

Following the coronavirus pandemic downturn, the positive yield curve's high was April 2022's 1.98 percent (monthly average; 10 year UST less three month bill). However, by August 2022, it slumped to a positive 22 basis points (data updated through 9/9/22; website says updates published within the first two weeks of each month). Though the NY Fed has not released statistics for September 2022, the differential for that month probably was not much above zero. in early October 2022, the positive slope has been about 20 basis points. Thus although the spread probably has not become negative and thus pointed to a substantial risk of a recession, it is close to doing so.

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Marketplace history and personal experience of course show that a given expectation (belief, opinion; probability assessment; forecast) held by an individual or group (even authoritative and experienced ones) regarding potential marketplace outcomes is not always (or necessarily) realized. This applies to the S+P 500, the United States Treasury 10 year note, the US dollar, Brent/North Sea crude oil, American inflation as measured by the CPI-U, recessions, and so forth.

Within and regarding marketplaces and other economic realms, as in other cultural domains, diverse narrators create and promote competing perspectives, explanations, and forecasts. In this process, the selection and weighing of variables ("facts", data, evidence, and factors) differs, sometimes considerably. Viewpoints on economic and other cultural "history" likewise are subjective. Thus in theory and practice, rhetorical crosscurrents and a range of expectations and actions related to stock, interest rate, foreign exchange, and commodities battlegrounds inescapably exist. Economic (financial; business; commercial) and intertwined political and social variables (conditions) and opinions regarding them can persist or change. So therefore can important marketplace trends and relationships as well as expectations related to them, sometimes dramatically.

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Marketplace expectations regarding either "inflation" or a particular inflation measure (such as the CPI-U, and there are very numerous other inflation yardsticks) are merely one variable influencing inflation levels and trends (and opinions, rhetoric, and actions regarding them). Marketplaces such as interest rates, stocks, currencies, commodities, housing, and so forth interrelate with and respond to such cultural expectation assessments regarding inflation. As part of its subjective perspective, a given marketplace observer may select a given inflation indicator as well as an analytical duration for it as particularly important. Inflationary time horizons are very numerous (and partly overlapping); picture month-to-month inflation, a one year span, or longer vistas such as five or ten years.

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To what extent has the Federal Reserve been successful in its campaign to keep inflation and inflationary expectations well-anchored?

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Various private and public institutions issue estimates of United States "inflation expectations". Monitor levels and trends in these indicators alongside those in interest rate, stock, and other marketplaces.

For example, several of the Federal Reserve banks publish inflation expectation measures. The St. Louis Fed publishes a daily "5-year, 5-year forward inflation expectation rate". Its website states:

"This series is a measure of expected inflation (on average) over the five year period that begins five years from today."

Calendar 2018's high for this expectation measure was 2/2/18's 2.35pc. Although it increased to interim highs of 2.38 percent on 5/11/21 and 2.41pc on 10/15/21, it generally stayed fairly close to two percent and never decisively breached 2/2/18's important 2.35pc high for quite some time. The measure stayed around and often under 2.00 percent thereafter. It plummeted from around 2/19/20's 1.65 percent (S+P 500 peak 2/19/20's 3394). The inflation expectation indicator bottomed on 3/19/20. The UST 10 year note yield major low occurred 3/9/20 at .31 percent. The S+P 500 reached its 1Q20 crash bottom on 3/23/20 at 2192. In addition, the highs for this expectation benchmark going back to 2004 are around 3.00 percent. For example, recall 11/12/08's global economic disaster summit of 3.05pc as the S+P 500 and other stock marketplaces crashed. Thus despite very high current inflation, some observers probably have faith in the Fed and are complacent regarding inflation for a fairly distant long run inflationary horizon such as that indicated by the 5 year forward yardstick.

| | **Major Bottom** | **Key 2022 Low** | **Subsequent High** | **Next Low** | **Recent High** |
|---|---|---|---|---|---|
| **5 Year, 5 Year Forward Inflation Expectation Rate** | .86pc (3/19/20) | 1.92 (1/20/22) | 2.67 (4/21/22) | 2.08 (6/30/22; 7/11/22) | 2.45pc (8/24/22) |

Despite an array of many months of very high inflation evidenced in consumer price measures (such as the CPI-U, and even if the measure excludes food and energy), longer run inflation expectations as measured the St. Louis Fed's indicator have remained comparatively very moderate. Thus not only has this five year forward yardstick declined since April 2022's 2.67 percent summit, but it also declined since around the time of the Fed Chairman's Jackson Hole speech in late August 2022.

Although the S+P 500 peaked on 1/4/22 at 4819, before 4/21/22's 2.67 percent high in the inflation expectations index, the S+P 500 established an important interim tops during its unhappy overall decline on 4/21/22 at 4513. The lows since the April 2022 high, 6/30/22's and 7/11/22's 2.08 percent, occurred close in time to interim troughs in the S+P 500 (6/17/22's 3637 and 7/14/22's 3722; UST 10 year interim high 3.50pc on 6/14/22); reduced inflation fears probably helped to rally equities and related search for yield marketplaces. Note the renewed slump in the S+P 500 commencing with 8/16/22's 4325, not long before the inflation expectation rate's 8/24/22 high. The low since late August 2022's high is 9/30/22's 2.16pc; compare the timing of the S+P 500's 9/30/22 trough at 3584 and the UST 10 year note yield high at 4.01pc on 9/28/22.

Arguably the Fed's rhetoric about its determination to vigorously combat inflation, as well as its raising of the Federal Funds rate and shrinking of its balance sheet, therefore have helped to keep the inflation measure subdued in the face of ongoing high CPI-U and PCE inflation statistics.

However, in the context of Fed tightening, the relatively low 5 year, five year forward inflation expectation rate of recent months, given the existing still-high actual consumer price inflation rate (and that actual CPI statistics greatly exceed that expectation rate), probably also indicates an outlook for the near term, and possibly for a somewhat more distant future (even if not necessarily as long five years out from now), of continued very mediocre US GDP growth, and perhaps even a recession. The relationship (pattern) since at least around spring 2022 of the time and direction trends of the St. Louis Fed inflation expectation statistic generally parallels the time and price trends for assorted “hunt for yield” marketplaces such as the S+P 500 (and corporate bonds and dollar-denominated sovereign emerging marketplace debt). This warns that a sustained move under the two percent level in the 5 year, 5 year forward inflation expectation rate probably will signal further economic feebleness and probably a recession.

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For additional analysis of key stock, interest rate, currency, and commodity marketplaces and their relationships, as well as the economic and political scenes, see: “Marketplace Expectations and Outcomes” (9/5/22); “Summertime Blues, Marketplace Views” (8/6/22); “We Can’t Get No Satisfaction: Cultural Trends and Financial Marketplaces” (7/13/22); “Gimme Shelter (and Food and Fuel” (6/5/22); “Running for Cover: Financial Marketplace Adventures” (5/3/22); “Marketplace Trends and Entanglements” (4/4/22); “Marketplace Relationships: Life During Wartime” (3/7/22); “Paradise Lost: the Departure of Low Interest Rates” (2/9/22); “Emerging Marketplaces, Unveiling Danger” (12/2/21); “Hunting for Yield: Stocks, Interest Rates, Commodities, and Bitcoin” (11/7/21); “Rising Global Interest Rates and the Stock Marketplace Battlefield” (10/5/21).

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