US DOLLAR AND OTHER MARKETPLACE ADVENTURES

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The rap music group Wu-Tang Clan sings in "C.R.E.A.M.": "Cash, Rules, Everything, Around, Me C.R.E.A.M. Get the money Dollar, dollar bill, y'all."

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CONCLUSION

Based upon the Federal Reserve Board's real and nominal Broad Dollar Indices, the United States dollar probably established a major top in autumn 2022. Its subsequent decline intertwined with a fall in the yield in the US 10 year Treasury note, and the dollar depreciation and UST yield decline interrelated with and encouraged notable price climbs in the S+P 500, emerging marketplace stocks, and several other important "search for yield" playgrounds.

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However, for the near term, the Broad Dollar Indices ("BDI") probably will appreciate some, thereby retracing some of the tumble from their autumn pinnacles. Why?

First, the Federal Reserve recently reemphasized its devotion to its monetary tightening agenda in its battle to return inflation to its two percent objective. This sentinel also has not ruled out further Federal Funds rate increases. It continues to reduce the size of its bloated balance sheet. Moreover, this noble guardian signals an intent to maintain policy rates for quite some time at heights sufficient to bring inflation down to acceptable levels. Unemployment figures remain very low (the Fed stresses "the labor market remains extremely tight"), further suggesting the likelihood that Fed policy will remain moderately hawkish for an extended time. See the 2/1/23 FOMC statement and the Fed Chairman's Press Conference.

Also, the dollar's weakness since autumn 2022, and the rally in key global stock marketplaces such as the S+P 500, has not been matched by a sustained rally in commodities "in general". All else equal, a weaker US dollar tends to boost the nominal price of dollar-denominated assets. Marketplace history is not marketplace destiny. However, despite occasional divergence, over the long run commodities in general have moved in similar time and price patterns with the S+P 500. Yet commodities in recent months, despite occasional rallies, have remained comparatively weak. Even the petroleum complex, despite vigorous OPEC+ efforts to support the price and embargoes on Russia imports, has shown merely intermittent strength; it resumed its slump . This relative feebleness in commodities despite dollar depreciation hints that at least for the near term, the dollar probably will not decline much further in the near term.

In addition, as of January 2023, the real broad Dollar Index (a monthly average) borders important support, April 2020's 113.4 summit. The nominal BDI (daily data) has retreated around ten percent from its autumn 2022 pinnacle, an important "correction" distance.

Consider recent US rhetoric about the importance of democracy relative to autocracy. For example, see the White House's "National Security Strategy" (10/12/22). Is that wordplay and related American global policy actions on topics such as the Ukraine/Russia conflict and the Taiwan/China relationship an effort to keep the dollar fairly strong?

AUTUMN 2022: THE LONG RUN US DOLLAR DECLINE COMMENCES

What entangled phenomena inspired United States dollar weakness beginning in early fall 2022? These included somewhat milder US central bank policy rhetoric around that time, the slowing in the America's CPI-U year-on-year rate of increase, and modest and ebbing inflation expectations. These not only encouraged the slump in the UST 10 year note's yield to begin in autumn 2022 and persist for several months, but also related US dollar depreciation and an enthusiastic jump in the S+P 500 and the prices of many related hunt for yield (adequate return) battlefields.

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On the central banking landscape, America no longer remained an undisputed leader (considerably more aggressive) on the tightening front. The Fed probably will tolerate a brief recession to defeat inflation, but it (and of course Wall Street and Main Street and politicians) likely would hate a severe one. In today's international and intertwined economy, further substantial price falls (beneath October 2022 lows) in the stock and corporate debt arenas (and other search for yield interest rate territories), and even greater weakness than has thus far appeared in home prices, plus a "too strong" US dollar, are a recipe for a fairly severe recession. Hence the Fed's late 2022 rhetorical murmurings aimed to stabilize marketplaces (and encourage consumer and business confidence and spending) and avoid a substantial GDP drop. So after several 75 basis point jumps, Fed leaders hinted that going forward they might not keep raising rates as dramatically. Early February 2022's 25 basis point boost appears small in comparison.

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Unnerving United States year-on-year increases in consumer price inflation, though still far above the Fed's revered two percent inflation target, slowed. This slowing rate of year-on-year CPI increase sparked widespread optimism that US Treasury and other key worldwide interest rates would not climb much more, and that they eventually would decline as inflation decelerated down toward inflation targets. This blissfully sunny inflationary outlook deemphasized that both the headline CPI-U as well as the CPI-U excluding food and energy remained very high relative to policy goals.

Let's scan US consumer price statistics (CPI-U, all items; Bureau of Labor Statistics; see Tables 1 and 5; 1/12/22; next release 2/14/23). In October 2022, it stood at "only" 7.7 percent year-on-year. This growth declined from dangerous heights exceeding eight percent in the several preceding months. The CPI-U (all items) ebbed to 7.1 percent year-on-year in November 2022 and 6.5pc year-on-year in December 2022.

The CPI-U excluding food and energy stood at 6.6 percent in September 2022. The rate of increase ascended 6.3 percent year-on-year in October 2022, sliding downhill to December 2022's 5.7pc year-on year rise.

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Various private and public institutions issue estimates of United States "inflation expectations". For example, 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." Long run history back to 2004 shows that around three percent is "high" for this measure.

The St. Louis Fed's forward inflation expectation rate bottomed during the early stage of the coronavirus at .86 percent on 3/19/20 (alongside the major low in the S+P 500 at 2192 on 3/23/20). This weathervane thereafter headed uphill, making an important low on 1/20/22 at

1.92pc. However, its high since remains 4/21/22's 2.67pc. Although the S+P 500 peaked on 1/4/22 at 4819, before 4/21/22's high in the inflation expectations index, the S+P 500 established an important interim top during its unhappy overall decline on 4/21/22 at 4513. Although the inflation expectation rate slipped to 2.08pc (6/30 and 7/11/22), its subsequent high was 10/24/22's 2.46pc.

The CPI-U all items reached 5.0 percent year-on-year in May 2021 and thereafter stayed above that level. Despite sustained troubling inflation since then, many marketplace observers probably retained faith in the Fed's ability to subdue it eventually. And it took quite some time for the Fed and other central banks and their followers to recognize and confess that inflation was not transitory or temporary. Yet arguably the Fed's unleashing rhetoric about its determination to vigorously combat inflation, as well as its sharp raising of the Federal Funds rate and shrinking of its balance sheet, helped to keep the St. Louis Fed inflation expectation measure subdued in the face of ongoing high CPI-U and personal consumption expenditure inflation statistics. The low in the five year forward expectations index since October 2022's interim high is 12/15/22's 2.11pc, bordering the early summer 2022 depth. (2.17pc on 2/3/23). The modest 5-year, 5-year forward inflation expectation level and its failure to exceed its April 2022 high probably helped the S+P 500 and related search for yield marketplaces to rally after mid-autumn 2022.

Monitor levels and trends in this expectation indicators alongside trends in interest rate, stock, and other marketplaces. Highlight the timing of the 10/24/22 interim high in this important inflation expectations yardstick with the timing of the S+P 500 rally, UST 10 year yield high, and the declines in the real and nominal Broad Dollar Indices.

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Key US trading partners such as China, Japan, the United Kingdom, and the Euro Area altered some of their economic and monetary policies in recent months. This strengthened their cross rates against the dollar, thus assisting the emergence and extension of overall United States dollar weakness (as measured by the real and nominal Broad Dollar Indices) beginning in early fall 2022.

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What factors indicate the likelihood of United States dollar weakness over the misty "long run"? The United States share of global GDP probably will continue to decline. Moreover, as the world has become increasingly multipolar, economic and political interests competitive with American ones no longer as easily (or at least as extensively) accept or require American leadership (hegemony) in the economic (including the dollar) and political spheres. Although the dollar will remain the important international reserve asset and the critical benchmark for conducting world trade business, on the margin (gradually), it probably will become less important.

Fierce partisan battles over America's raising its national debt ceiling probably trouble numerous observers. But even if Republicans and Democrats eventually agree to increase the ceiling, the American debt situation for the long run remains very worrisome. Existing public debt as a percentage of GDP is very substantial, and gurus expect this probably will rise over time under current policies. Interest rates consequently may need to increase quite a bit from current levels. So near-term (and ongoing) debt (and spending) squabbles and underlying long term debt challenges will induce some fear in US dollar asset holders. Thus the dollar (and many dollar-denominated assets) may become less desirable.

Cultural divisions and conflicts of course span the globe. However, America's deep-seated ones arguably make the nation less able to solve its significant problems (not only the sizeable and growing federal debt). Given the nation's election year 2024 politics, these cultural wars probably will persist for quite some time. Thus the nation and its assets (including the dollar) have become marginally less appealing to some investors.

Competitive depreciation (currency wars) tends to limit currency depreciation and appreciation to some extent. In any case, Americans do not want a "too weak" dollar. Not only does a "too weak" dollar suggest economic and political feebleness (reduced power), but also (all else equal) a depreciating dollar can have inflationary consequences. However, the Broad Dollar Index currently is far from feeble from the long run historical perspective. Besides, perhaps a somewhat weaker dollar will assist American economic growth for a while. With the 2024 election campaign looming, the current US Administration probably does not want the dollar to be "too high".

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The real Broad Dollar Index's attained its high (monthly average; Fed H.10; goods and services: January 2006=100) in October 2022 at 121.5. From the major bottom over 11 years before then in July 2011 at 83.9, the BDI skyrocketed 44.8 percent. From the important interim low over eight years ago in July 2014 at 88.9, it soared 36.7pc. The BDI traveled 21.3pc from February 2018's 100.2 trough to its October 2022 summit. The real BDI jumped substantially, 17.7 percent, from January 2021's 103.2 low to the October 2022 peak about 21 months later.

That price and time BDI bull market history (a substantial percentage climb over a long period of time with several extensive bull stages) of course does not mandate a major long run decline for the US dollar. However, in conjunction with the preceding noteworthy bearish factors, it does indicate that the real Broad Dollar Index has the potential for a noteworthy decline (and greater than what has occurred thus far since October 2022's peak) lasting for a considerable period of time. The widespread depreciation of the dollar versus its major trading partners since early autumn 2022 (even if the dollar rallies some in the near term) also indicates the probability that a major long term bear move for the US dollar is underway.

What about some previous substantial bear moves for the "overall" US dollar? These also suggest that the US dollar has considerable scope from the time and distance perspective to decline further over the long run relative to its October 2022 peak.

The Fed's real Broad Dollar Index for goods and services ventures back to January 2006. However, the discontinued statistics for the goods-only broad real trade-weighted US Dollar Index ("Real Broad Dollar Index (Goods Only)") goes back to 1973 (March 1973=100; monthly average). The bear move from January 1973's 107.6 to October 1978's 84.1 traveled 21.8 percent and lasted over five and one-half years. The mammoth dollar 34.6 percent crash from March 1985's 128.4 to July 1995's 84.0 major bottom ran over ten years. That adventure had interim lows in December 1988 at 89.8 and August 1992 at 85.4. The long-running collapse in the "overall" US dollar preceding the global economic disaster of 2007-09 began with February 2002's 112.8, ending with April 2008's 84.1 major low. That bear trend took slightly more than six years and covered a 25.4 percent distance. Using the real BDI (goods and services) for the subsequent shorter bear move from March 2009's 101.6 to July 2011's 83.9, that pattern took over two years for a 17.4 pc retreat.

MARKETPLACE CONVERGENCE AND DIVERGENCE: RECENT HISTORY

"For the love of money
People can't even walk the street

Because they never know who in the world they're gonna beat
For that lean, mean, mean green
Almighty dollar, money." The O'Jays, "For the Love of Money"

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Marketplace history need not repeat itself, either entirely or even partly. Financial marketplace trends entangle in diverse fashions, which of course can change, and sometimes dramatically. Convergence and divergence (lead/lag) relationships between them can and do evolve, sometimes significantly. Yet an increasing reversal of a given ongoing prior set of patterns between one or more key interest rate, stock, currency, and commodity marketplaces can attract growing attention and accelerate price moves in the new directions.

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In general, from around the beginning of calendar 2022 until mid-October, as American and other key global government interest rates continued to rise (enlist the United States Treasury 10 year note as a benchmark), the S+P 500 (and other advanced nation and emerging marketplace stock playgrounds) declined. Growing fears regarding substantial and persistent consumer price (and other) inflation by the Federal Reserve and its central banking allies and the linked policy response of raising Federal Funds and similar rates played key roles in the yield climbs and stock price falls. Bear trends for other "search for yield" assets such as corporate bonds and United States dollar-denominated emerging marketplace corporate debt converged with those of the S+P 500 and emerging marketplace stocks. Commodities "in general" ("overall") of course do not always trade "together" in the same direction around the same time as the S+P 500. Nevertheless, in broad brush terms since around late first quarter 2022 and many months thereafter, their downward price and time trends converged.

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 helped to undermine the S+P 500. A very strong US dollar encouraged the relationships of higher US Treasury yields, descending stock prices, and eroding prices for commodities "in general".

However, the US 10 year note yield achieved an important high on 10/21/22 at 4.34 percent. Using the Federal Reserve Board's nominal Broad Dollar Index as a weathervane, the dollar peaked at 128.6 on 9/27/22 and 10/19/22. The S+P 500 established a trough in its bear trend with 10/13/22's 3492. Based on the S+P GSCI, commodities in general attained a minor low on 9/28/22 at 591.8, holding at 591.1 on 11/28/22, though they resumed their decline and achieved new lows thereafter. Note the roughly similar times (and thus the convergence) of these marketplace price turns, which thereafter reversed, at least temporarily, the preceding substantial trends.

The depreciation of the US dollar in the past few months thus interrelated with (confirmed) the price rallies in the S+P 500, emerging marketplace stocks, and many other search for yield playgrounds.

US DOLLAR ADVENTURES

Everlast sings in "Money (dollar bill)" of "Dollar, dollar bills, Deutch, marks, franks, yens, and his desires. He links cash with stocks with stocks and bonds (and much else, such as jewelry, land, and long trips).

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The Federal Reserve releases a real Broad Dollar Index (H.10; January 2006=100; monthly average; 2/1/23 is the latest release) as well as a nominal Broad Dollar Index (daily data; 1/30/23 release; 1/27/23 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) 128.6 (10/19/22)	16.4pc

Note the initial low in the nominal Broad Dollar Index 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 (EEM ETF top at 58.29).

The real Broad Dollar Index peaked in April 2020 at 113.4. It declined to 103.2 in January 2021. With May 2022's 114.6, it surpassed April 2020's key resistance. The real Broad Dollar Index ("BDI") was very strong (arguably "too strong") in the several months running up to and including its peak in October 2022. From August 2022's lofty 117.1, it appreciated to 120.0 in September 2022 and 121.5 in October 2022, smashing 7.1 percent over April 2020's 113.4 summit. The nominal BDI in mid-July and late August 2022 approached its late March 2020 high, eventually blasting over it to reach 9/27/22's and 10/19/22's 128.6 (see also 11/3/22's 128.4).

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The late September/October 2022 highs in the real and nominal Broad Dollar Indices coincided with (interrelated with; confirmed) the October 2022 lows in the S+P 500 (10/13/22 at 3492) and other search for yield marketplaces as well as the timing of the UST 10 year note yield highs at 4.01 percent (9/28/22) and 4.34pc (10/21/22).

Since late September/October 2022, the US dollar has depreciated a moderate amount. The real Broad Dollar Index ebbed to 118.9 in November 2022, 116.2 in December 2002, and 113.9 in January 2023, a 6.3 percent decline. A five percent decline from October 2022's 121.5 equals 115.4, a ten percent tumble gives 109.4, a fifteen percent drop 103.3, with a twenty percent crash 97.2.

The nominal BDI's low following its September/October 2022 highs around 128.6 is 1/27/23's 119.1, a 9.3 percent slide. Given the dollar's decline in several key cross rates for several days after 1/27/23, the nominal BDI probably dipped beneath 119.1 last week and thus its erosion slid closer to ten percent. A five percent fall in the nominal BDI gives 122.2, a ten pc correction 115.7, a fifteen pc one 109.3, with a twenty pc collapse 102.9.

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Marketplace history indicates that United States dollar weakness can fuel or coincide with (confirm) a rally in the S+P 500. Sometimes (but not always) the Broad Dollar Index has attained critical 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 attained a significant trough on 12/26/18 at 2347; November 2018's real BDI interim top at 107.8, though not a final milestone 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.

Therefore, looking forward for the near term, renewed strength in the dollar for the near can intertwine with higher UST yields and a falling S+P 500. Suppose the real BDI stays beneath October 2022's 121.5 high. If it nevertheless hovers above or even "around" April 2020's 113.4 prior top, it still would be quite strong from the long run historic perspective. The real BDI therefore probably would be a bearish factor for the "hunt for yield/return" securities playgrounds, especially if United States and other key interest rate benchmarks continued to climb.

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Many on Wall Street and Main Street surely recognize 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 nominal BDI's venture beneath its 3/23/20 summit at 126.1 after around 11/9/22 probably accelerated the bull move in the S+P 500 and many other key global stock marketplace signposts.

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The Federal Reserve provides currency weights for the Euro Area and various nations within its United States Broad Dollar Index (H.10; as of 1/3/22). In the following table, the weights of these seven currencies add up to about 75.0 percent. Note the timing of the recent cross rate lows in various key currencies relative to the US dollar.

In recent months, several key American trading partners acted in various fashions with consequential rallies for their currency relative to the dollar. For example, note the Chinese renminbi rally as China eased its restrictive Covid-fighting policy, thus creating potential for a more rapid expansion of the country's GDP. China also continues successfully to postpone a decisive reckoning with its troubled real estate situation. Japan intervened in foreign currency marketplaces to defend the Yen and permitted some increase in its interest rate scheme, The United Kingdom changed its government leadership, defended the British Pound (and British securities marketplaces) and abandoned a loose fiscal proposal. The European Central Bank embarked on a more aggressive tightening agenda for interest rate increases.

Currency (PC Weight in BDI)	**Recent Cross Rate Low Versus US Dollar (date)**	**Following High (so far) Vs. USD (date); PC Rally**
Euro FX (19.6 percent)	.954 (9/28/22)	1.103 (2/2/23); 15.6 percent
British Pound (5.0pc)	1.035 (9/26/22)	1.245 (1/23/23); 20.3pc
Canadian Dollar (13.0pc)	1.398 (10/13/22)	1.323 (11/15/22); 5.4pc
Mexican Peso (13.2pc)	20.58 (9/28/22)	18.51 (2/2/23); 10.1pc
Chinese Renminbi (14.8pc)	7.327 (11/1/22)	6.691 (1/16/23); 8.7pc
Japanese Yen (6.0pc)	151.9 (10/21/22)	127.2 (1/16/23); 16.3pc
Swiss France (3.4pc)	1.015 (10/21/22)	.906 (2/2/23); 10.7pc

The Canadian Dollar essentially equaled its November 2022 top with 2/2/23's 1.326. Thus various cross rates converged in mid-January/early February 2023 in attaining highs against the US dollar. Note also the timing of the recent yield lows for the UST 10 year note (1/19/22's 3.32pc and 2/2/23's 3.33pc), as well as the S+P 500's high since its October 2022 bottom, 2/2/23's 4195. For the near term, based on recent history, renewed US dollar strength on an overall cross rate basis (and for the Broad Dollar Index) probably will connect with rising UST 10 year yields and a decline in the S+P 500 and emerging marketplace stocks.

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Gold's trough at 1615 on 11/3/22 (and 9/28/22's low at 1620) occurred close in time to the US dollar highs. Note its subsequent rapid acceleration up to 2/2/23's 1959, a 21.3 percent rally. Gold/'s bull move has carried it to within sight of 3/8/22's 2072 summit.

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Though Bitcoin and other cryptocurrencies absorb the label "currency", they also belong to an alluring search for yield asset category. In recent years, cryptocurrency marketplaces have become an alluring racetrack for some search for yield players (especially Main Street fortune-hunters, but also numerous institutions).

Since first quarter 2020, Bitcoin and the S+P 500 have displayed roughly similar price and time shifts (trend changes). 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 11/10/21 at 69000, a few weeks before the S+P 500's major high at 4819 on 1/4/22. Bitcoin attained an important second top on 12/27/21 at 52100, very close in time to the S+P 500's January 2022 summit.

The timing of Bitcoin's initial low on 6/20/22 at 17579 (beneath 12/18/17's 19787 high) was close to the S+P 500's 6/17/22 interim low at 3637. Bitcoin exploded up a sharp 43.4 percent to reach 25214 on 8/15/22 (compare the date of the S+P 500's 8/16/22 interim top at 4325). However, Bitcoin thereafter cratered violently from 11/7/22's 21479 to 11/10/22's 15518. Bitcoin thus collapsed 77.5 percent since its November 2021 summit.

Bitcoin's subsequent high at 24257 (in conjunction with other marketplaces, underscore that 2/2/23 date) soars 56.3 percent since 11/10/22.

Bitcoin's rally since fall 2022 occurred alongside US dollar depreciation. Bitcoin's price leap coincided with jumps in the S+P 500 and emerging marketplace stocks (and declines in the UST 10 year note yield). Thus renewed weakness in Bitcoin probably will coincide with a decline in the S+P 500 and (even if not permanent), renewed US dollar strength, and higher yields.

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To some extent, the dollar at present is a safe haven in troubled global economic (and political) epochs. Watch the currency trends of emerging marketplaces for signs of crisis.

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All else equal, United States dollar feebleness tends to inspire ascents in the nominal value of dollar-denominated assets, including stocks. In principle and practice, that tendency is not inevitable. History thus reveals that the dollar can depreciate substantially alongside notable falls in the S+P 500 and "related" stock marketplaces. For example, picture a world of rising US and international interest rates (perhaps alongside dangerous inflation), widespread belief that America's public debt situation is poorly controlled and at fearful levels, and tighter monetary policy in many other leading nations relative to the US. And suppose corporate earnings prospects looked gloomy. Marketplace history of course also shows the dollar can appreciate alongside a rally in the S+P 500.

THE US TREASURY YIELD GAME

In the film "Gentlemen Prefer Blondes" (Howard Hawks, director), the character Dorothy Shaw asks: "Honey, did it ever occur to you that some people just don't care about money?" Lorelei Lee replies: "Please, we/re talking serious here."

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	1Q20 Yield Bottom	**Spring 2020 Yield Low**	**Later 2020 Yield Low**	**1Q21 Yield High**	**Aug 21 Yield Low**	**Following 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) 4.34 (10/21/22)

The UST 10 year note's yield low since its 10/21/22 summit is 1/19/22's 3.32 percent, with 2/2/23's 3.33pc depth adjacent to it. Compare the timing of the S+P 500's high since its 10/13/22 bottom, 2/2/23's 4195.

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The Federal Reserve may adjust its December 2022 Economic Projections when it meets in March 2023, or at a later meeting. The Fed next convenes 3/21-22/23 and 5/2-3/23. However, its comments during its latest meeting on 2/1/23 indicate a still-significant monetary tightening bias.

The FOMC 2/1/23 Statement headlines: "The Committee anticipates that ongoing increases in the [Federal Funds] target range will be appropriate in order to attain a stance of monetary policy that is sufficiently restrictive to return inflation to 2 percent over time." In the following Press Conference, the Chairman stressed: "we have more work to do." Although the FOMC raised the Fed Funds rate by only 25 basis points to the 4.50 to 4.75pc range, and although the Chairman asserted the Fed "will continue to make our decisions meeting by meeting", the Chairman reemphasized that "We continue to anticipate that ongoing increases will be appropriate in order to attain a stance of monetary policy that is sufficiently restrictive to return inflation to 2 percent over time." Moreover, "Restoring price stability will likely require maintaining a restrictive chance for some time. " The Fed continues to tighten monetary policy by shrinking the size of its gigantic balance sheet by up to $60 billion in UST and $35bb in agency mortgage-backed securities each month.

Even though growth has slowed, "the labor market remains extremely tight" and wage growth is "elevated". "It will take time…for the full effects of monetary restraint to be realized, especially on inflation."

So the Fed's December 2022 Economic Projections continue to offer guidance on future Fed monetary policy. The Fed's most recent Economic Projections for the Federal Funds rate at the end of a given calendar year (Table 1, 12/14/22) gave a midpoint (central tendency) of 4.40 percent for 2022, anticipating about 5.25pc for 2023 (up from its 9/21/22 projection of 4.65pc for 2023), and 4.40pc for 2024 (up from September 2022's 3.90pc estimate). The watchdog continues to promote its misty "Longer run" PCE inflation level of 2.0 percent, with the Federal Funds rate for that horizon at 2.40pc. Its December 2022 outlook for core personal consumption expenditures for 2023 (fourth quarter, year-on-year; midpoint, central tendency) is 3.45 percent, up mildly from September 2022's 3.20pc projection.

In any case, suppose the 10 year US Treasury note at year end 2023 matches the Fed Funds level projection. Then the UST will yield 5.25 percent, above October 2022's 4.34pc crest. Compare the UST 10 year yield top at on 6/13/07 at 5.32 percent. Alternatively, if the US 10 year note yield at end December 2023 is 100 basis points beneath the 5.25pc Fed Funds, the UST's resulting yield of 4.25pc stretches up from its current elevation. What if the UST 10 year note yield provides a real return of 50 basis points relative to the Fed's core PCE measure at year end 2023? Then its yield will be nearly four percent (3.45pc plus 50 basis points), above its early February level. Alternatively, looking forward, suppose America's core CPI-U inflation rate dips further on a year-on-year basis, 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 barometer. Then the US 10 year yield will hover at 4.50 percent or higher.

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Moreover, "too high" inflation remains a global problem, not only a US one. Prospects for generally sustained high worldwide interest rates probably will tend to weaken the S+P 500 and other stock marketplaces (and other "search for yield" asset classes).

According to the International Monetary Fund's recent "World Economic Outlook Update" (1/30/23), In most economies, amid the cost-of-living crisis, the priority remains achieving sustained disinflation." "For most economies, the priority remains achieving a sustained reduction in inflation toward target levels. Raising real policy rates and keeping them above their neutral levels until underlying inflation is clearly declining would ward off risks of inflation expectations deanchoring."

The IMF adds: "underlying (core) inflation has not yet peaked in most economies and remains well above pre-pandemic levels." (See Figure 1.) Although "Signs are apparent that monetary policy tightening is starting to cool demand and inflation", note the word "starting"; also, "the full impact is unlikely to be realized before 2024." The IMF states world consumer prices increased 8.8 percent in 2022 (annual average; "headline" inflation measure), with those for advanced economies growing 7.3pc and emerging market/developing economies marching 9.9pc higher. For 2023, this clairvoyant predicts world consumer prices will increase 6.6 percent (4.6pc in advanced nations, 8.1pc in emerging market economies) and 4.3pc in 2024. (See Table 1.) Thus for at least calendar 2023, many nations may face relatively high interest rates.

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Thus for the near term, given the prevailing convergence relationships between the UST 10 year note and the US dollar, a return to rising UST rates, all else equal, probably will keep the US dollar fairly powerful from the long run historic perspective. The dollar nevertheless will find it challenging to surpass its recent high by much (if at all) for very long.

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Foreigners hold a substantial amount of US Treasury securities, about $7.3 trillion as of end November 2022. However, that total drops about $500 billion from the prior 12 month high, December 2021's $7.8 trillion. Going forward, suppose foreigners are reluctant to add substantially to their UST holdings, or remain net sellers. Suppose also that the Fed continues to reduce the size of its UST-loaded balance sheet). All else equal (unless there is a significant recession), this will encourage rises in UST yields.

EMERGING MARKETPLACE SECURITIES BATTLEGROUNDS

The Grateful Dead declare in "Loser":
"If I had a gun for every ace I have drawn
I could arm a town the size of Abilene
Don't you push me, baby, because I'm moanin' low
And you know I'm only in it for the gold
All that I am asking for is ten gold dollars
And I could pay you back with one good hand
You can look around about the wide world over
And you'll never find another honest man"

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Rising American interest rates and a strong dollar can intertwine to place pressure on many emerging marketplace borrowers (debtors). This tends to push prices for emerging marketplace US dollar-denominated debt instruments lower (yields higher), which in turn helps to encourage weakness in emerging marketplace stocks. Reduced pressure on emerging marketplace sovereign and corporate borrowers with dollar-denominated debt (picture falling UST yields and a depreciating dollar) can elevate emerging marketplace debt and stock prices.

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Let's investigate emerging marketplace sovereign debt arenas. 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 and has a weighted average maturity of about 12.4 years (12/31/22). 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.

The EMB collapsed 34.2 percent from 1/4/21's 116.09 pinnacle to 10/21/22's 76.35 trough. The EMB also manifested a pattern of lower interim price highs since January 2021. This resembled the picture of emerging marketplace stocks in general, which peaked in mid-February 2021, close in time to the EMB's January 2021 price high. For example, see the EMB's 8/31/21 top at 113.64 and 1/3/22's 108.73. The EMB's renewed price retreat (yield increase) from 8/11/22's 90.71 minor top began shortly before the S+P 500's interim top on 8/16/22 at 4325.The EMB price crash (yield spike) in recent months burrowed well beneath 3/18/20's 85.00 price low.

Significantly, note the closeness in time of the late October 2022 yield highs (price lows) for EMB (10/21/22's 76.35) in relation to the UST 10 year note's yield high (10/21/22's 4.34 percent) and the S+P 500's important low on 10/13/22 at 3492. The EMB's price high since its October 2022 low is 2/2/23's 89.97, a 17.8 percent climb.

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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 32.2 percent portion of the EEM (BlackRock's iShares website, 12/31/22).

Rising yields in emerging marketplace debt securities helped lead to price peaks for and subsequent weakness in emerging stock marketplaces (EEM). 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.

The EEM's low in its bear move since 2/16/21's 58.29 crown is 10/24/22's 33.49, a shattering 42.5 percent crash (35.80 low 11/9/22). The 10/24/22 valley neighbors the mournful 3/23/20 coronavirus bottom at 30.10. China's Shanghai Composite Index attained a crucial trough on 10/31/22 at 2885, near 4/27/22's 2864.

As for the EMB's price rally, the EEM's climb since autumn 2022 intertwines with the decline in the real (and nominal) Broad Dollar Index. The EEM's high since its October 2022 low is 1/26/23's 42.53, a sharp 27.0 percent ascent. The Shanghai Composite Index high since October 2022 is 1/30/23's 3310.

In the EEM's pattern of descending interim highs following the February 2021 crest, note the proximity in time of 1/12/22's 50.89 to the S+P 500's major high on 1/4/22. In today's interconnected global economy and its financial marketplaces, if the EEM declines significantly following its bounce since 10/24/22, that is a bearish omen for the S+P 500, whose recent high is 2/2/23's 4195.

US STOCK MARKETPLACE MANEUVERS

Richard Petty, a greatly accomplished US race car driver (nicknamed "The King"), underscores: "No one wants to quit when he's losing and no one wants to quit when he's winning."

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Underscore the similar timing of the rally in the S+P 500 from its October 2022 bottom and the US dollar's depreciation since fall 2022.

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Very long run American marketplace history 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.

Sustained rising US (and global) interest rate yields led to the S+P 500's majestic and joyful pinnacle at 4819 on 1/4/22. 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 27.5 percent to 10/13/22's gloomy 3492 low, which rested merely 2.9 percent above 2/19/20's 3394 pre-coronavirus pandemic peak.

Broad Dollar Index trends probably assisted the creation of the S+P 500's January 2022 top and its subsequent decline. The real Broad Dollar Index peaked in April 2020 at 113.4. After an extensive rally from January 2021's 103.2 low, May 2022's 114.6 surpassed April 2020's key resistance. Note the S+P 500 slump from its interim highs at 4637 (3/29/22) and 4513 (4/21/22). The real BDI kept rising for several more months. In this BDI and S+P 500 context, note also the timing of the broad S&P GSCI's peak on 3/28/22 (at 853.3) and the important subsequent drop-off point on 6/8/22 (at 825.4). Thus the real Broad Dollar Index ("BDI") was very strong (arguably "too strong") in the several months running up to and including its peak in October 2022.

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 UST 10 year's yield high at on 10/21/22 at 4.34 percent occurred only a few days after the S+P 500's critical trough at 3492 on 10/13/22.

Spotlight also 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 after 8/16/22's 4325 interim high (including its dreadful nosedive from 8/26/22's 4203, the day of the Fed Chairman's Jackson Hole speech).

	1Q 2020 High (date)	**1Q 2020 Low (date)**	**Interim High**	**Take-Off Low (date)**	**Peak and Other Highs(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)
				Key 2022 Lows	4513 (4/21/22)
				4115 (2/24/22)	4308 (4/28/22)
				3637 (6/17/22)	
				3722 (7/14/22)	4325 (8/16/22
				3492 (10/13/22)	4195 (2/2/23)

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Given a return to rising yields and some US dollar strength, the S+P 500 probably will resume its decline, although it will be difficult for it to breach its October 2022 depth by much in the absence of a sustained global recession.

The long-run rising yield pattern in America's UST arena (and in interest rates around the globe) probably will continue to place downward pressure on US and other stock marketplaces. Though the UST 10 year yield slipped after 10/21/22, a sustained yield increase moving back toward four percent (and especially an advance above the 4.34 percent October 2022 high) probably will propel the S+P 500 lower. Compare the convergence (closeness in time and price pattern) of the S+P 500's high on 2/2/23 with the EEM's on 1/26/23 at 42.53. Emphasize too the timing of price highs in the S+P 500 and EEM alongside the January 2023 low in the real Broad Dollar Index, the late January (or early February) 2023 low (data currently available through 1/27/23) in the nominal BDI, and highs in mid-January/early February 2023 in various cross rates against the US dollar.

THE WILD WEST OF COMMODITIES

Listen to Duke Ellington's jazz composition, "Money Jungle".

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In recent years, numerous marketplace guides and their fans have included commodities "in general" as a worthy member in their alluring arsenal of "investment" asset classes. Enlist the broad S&P GSCI as a benchmark for commodities in general, although the GSCI is heavily petroleum-weighted.

All else equal, a weaker US dollar tends to boost the nominal prices of dollar-denominated financial instruments such as commodities. However, a feebler dollar does not always in practice mandate (parallel; confirm) higher prices for dollar-denominated commodities. Neither does a stronger dollar necessarily coincide with or lead to a slump in commodities prices.

In any event, 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 (nearest futures continuation) 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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Let's summarize the broad S+P GSCI's key price moves since January 2020. 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 very elevated until around mid-June 2022.

.	**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) 522.3 (12/20/21) 595.2 (1/24/22) 627.7 (2/9/22)	853.3 (3/8/22) 825.4 (6/8/22)

.	1Q 2020 High (date)	1Q 2020 Low (date)	Nov 2020 Take-Off Low (date)	Take-Off Points	Highs (to date)
				632.1 (2/18/22)	
				648.0 (2/25/22)	
				679.3 (3/15/22)	
				632.9 (7/14/22)	705.3 (7/29/22)
				591.8 (9/28/22)	703.2 (8/29/22)
				591.1 (11/28/22)	671.5 (10/10/22)
					671.1 (11/7/22)
				New Lows Under <u>9/28 and 11/28/22 Levels</u>	
				568.9 (12/9/22); 569.2 (1/5/23)	

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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 represented relatively modest divergence between those marketplace realms from the time parameter. After around March 2022 and into autumn 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.

As noted above, a real Broad Dollar Index bull trend and high BDI levels probably assisted the creation of the S+P 500's January 2022 top and its subsequent significant bear move, as well as the sharp decline in the broad GSCI from its March 2022 and June 2022 tops. The real Broad Dollar Index peaked in April 2020 at 113.4. After an extensive rally from January 2021's 103.2 low, May 2022's 114.6 surpassed April 2020's key 113.4 barrier. The S+P 500 collapsed from interim highs at 4637 (3/29/22) and 4513 (4/21/22). The real BDI ascended for several more months after May 2022. In this BDI and S+P 500 context, see the timing of the broad S&P GSCI's major high on 3/28/22 (at 853.3) and the important drop-off point on 6/8/22 (at 825.4). Thus the real Broad Dollar Index ("BDI") was very strong (perhaps "too strong") in the several months up to and including its October 2022 summit.

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The significant price decline in commodities in general following the second high on 6/8/22 at 825.4 (compare the timing of the UST 10 year note's interim yield top, 6/14/22's 3.50pc) down to 7/14/22's 632.9 arguably ignited interim price rallies in the S+P 500 and related search for yield marketplaces prior to the S+P 500's October 2022 key low. The 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.

Russia invaded Ukraine on 2/24/22. 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 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 8/26/22 date of the Fed Chairman's Jackson Hole speech). 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).

Emphasize the roughly similar timing of the GSCI's 9/28/22 minor low at 591.8 with yield highs in the UST 10 year (4.01 percent on 9/28/22; 4.34pc on 10/21/22), summits in the nominal Broad Dollar Index (128.6 on 9/27/22 and 10/19/22), and 10/13/22's 3492 low in the S+P 500. The GSCI bounced up about 13.5 percent to 671.5 on 10/10/22 (11/7/22's 671.1 bordered this). However, that elevation remains the high of the interim GSCI rally.

ICE Brent/North Sea crude oil (nearest futures continuation) traveled beneath its critical 10/25/21 top at 8670 (and 10/3/18's 8674 high) making an important initial low at 8365 on 9/26/22. Compare the timing of these lows with those in the S+P 500 and other financial marketplaces.

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The GSCI's 9/28/22 and 11/28/22 lows stood near its crucial 10/25/21 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). On 10/3/22, shortly before the 10/5/22 OPEC+ production cut scheme aiming to support and elevate petroleum prices, it stood at 607.8.

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However, despite the noteworthy dollar weakness since autumn 2022, as well as the significant price climbs in the S+P 500 and emerging marketplace securities, the broad GSCI and the petroleum complex have been unable to sustain rallies. The 10/10/22 GSCI high remains intact.

The GSCI's lows around 569.0 (568.9 on 12/9/22; 1/5/23's 569.20) occurred a couple of months after the autumn 2022 bottom in the S+P 500 and highs in the Broad Dollar Indices. The GSCI's descent totaled 33.3 percent from March 2022's 853.3 peak, a terrifying bear move for commodities investors and other owners of this "alternative asset class".

Yet despite ongoing US dollar depreciation since autumn 2022 (at least until January/early February 2023), despite the S+P 500's rally (at least until its 2/2/23 high) since its October 2022 bottom, the broad GSCI and the petroleum complex have remained weak (in a downtrend). The GSCI not only rests well beneath its summer 2022 interim tops just above 700.0, but even under its take-off points shortly before Russia's February 2022 Ukraine invasion (627.7 on 2/9/22 and 632.1 on 2/18/22). Its 2/3/23 low at 573.9 borders its bear marketplace trend lows around 569.0 (12/9/22 and 1/5/23).

OPEC+'s ability to successfully defend a Brent/North Sea crude oil price around 83 dollars per barrel (nearest futures continuation) depends substantially on interest rate and stock levels and trends, as well as the extent of US dollar strength.

OPEC+ decided on 10/5/22 to slash its crude oil output by about two million barrels per day from November 2022 to end 2023 to support petroleum prices. Brent/North Sea crude oil's interim top on 11/7/22 at 9956, increased 19.0 percent from 9/26/22's trough. Brent nevertheless motored downhill to establish a new low, 12/9/22's 75.11. That valley equals a 46.0 percent crash from 3/7/22's celestial 13913. Anxious to avoid a further collapse in petroleum prices, OPEC+'s 12/4/22 meeting reaffirmed its 10/5/22 plan. Yet despite Brent/North Sea's rally to 1/23/23's

89.09 (over ten dollars beneath November 2022's interim high), it slumped to 2/3/23's 79.62, rather close to the 12/9/22 valley.

What about the important base metals complex? COMEX copper (nearest futures continuation) attained an important low on 7/15/22 at 3.150, with an important second trough on 9/26/22 alongside the nominal BDI high on 9/27/22. Copper leaped 37.0 percent to 1/18/23's 4.315. However, it receded about 6.0 pc to 2/3/23's 4.054.

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Given the long run tendency for commodities in general and the S+P 500 to venture in the same direction "together" (converge from the price and time standpoint) in their very important trends, the existence of the modest trend divergence between stocks and the broad GSCI (and petroleum) up to the time of the S+P 500's recent high on 2/2/23 at 4195 probably portends a shift in trend for either the GSCI or the S+P 500.

Suppose the UST 10 year note yield continues to climb notably from 1/19/23's low around 3.32 percent (and 2/2/23's at 3.33pc). In relation to the UST's yield low, note the similar timing of the US dollar's January 2023/early February 2023 lows. Suppose also that the US dollar appreciates alongside the increase in US Treasury yields. That will confirm the downtrend in the GSCI (commodities in general) and petroleum. Therefore, the S+P 500's climb since autumn 2022 will cease and it will move lower.

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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 other essays such as: "Wall Street Marketplaces: Fasten Your Seat Belts" (12/5/22); "Critical Conditions in Financial Marketplaces" (11/13/22); "Hunting for Yield: the Thrill Is Gone" (10/4/22); "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).

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