BALANCING ACTS: FINANCIAL MARKETPLACE TRENDS

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In the movie "Back to the Future" (director, Robert Zemeckis), Dr. Emmett Brown warns: "No! Marty! We've already agreed that having information about the future can be extremely dangerous. Even if your intentions are good, it can backfire drastically!"

OVERVIEW

Various economic, political, and other cultural leaders and their devoted apostles and other assorted followers develop and maintain (and sometimes change) perspectives on cultural phenomena; they also seek to attract and persuade audiences and guide their actions. Values of "good" and "bad" permeate all these outlooks. This cultural (subjective) process involves a personal selection and assessment of allegedly important variables and the creation of a range of propositions, arguments, and conclusions. This quest within and across cultural arenas includes, explicitly or implicitly, dialogues and disagreements and battles with diverse subjective perspectives (opinions). Some of the outlooks and related behavior are similar in varying degrees; however, others often dramatically differ, and thus competitions between them often are hostile. Advocates for the various gospels and related behavior generally attribute the virtues of reasonableness to what they embrace, often criticizing those of others as less worthy, less rational, or unreasonable. Underscore, for example, today's wide-ranging and often-overlapping cultural wars and their enthusiastic partisans.

Picture also "financial" marketplaces such as interest rates, stocks, currencies, commodities, and real estate. Within and regarding these general categories (such as "stocks in general" and broad territories within them (such as United States equities) as well as narrower domains within them (imagine a stock sector or individual security) competing and often complex interests, visions, and voices exist and intertwine. There are bulls and bears in any given marketplace, and sometimes one of the camps prevails for a given period of time. The perspectives, sermons, and actions within each domain nevertheless are diverse, and allegiances and behavior can change. Hence the wide variety of arguments and opinions and actions in marketplaces relating to "the" historic past, "the" current situation, and (perhaps especially) the future inevitably exist, even among "investment" sects in the same playground such as the S+P 500.

Moreover, marketplace realms such as interest rates, stocks, foreign exchange, and petroleum interrelate, as do the subjective perspectives and actions within and regarding them. Consequently, diverse rhetoric and action within and between Wall Street (and Main Street and political) marketplaces creates an array of contending "forces" which produce apparent trends within and across the marketplaces. Since marketplace opinions and actions can and do change, sometimes dramatically, so can convergence and divergence (lead/lag) relationships.

THE US TREASURY YIELD GAME

The rap music group Run DMC underscores in "Hard Times": "Hard times spreading just like the flu Watch out homeboy, don't let it catch you P-p-prices go up, don't let your pocket go down When you got short money you're stuck on the ground".

	1Q20 Yield Bottom	Spring 2020 <u>Yield Low</u>	Later 2020 <u>Yield Low</u>	1Q21 <u>Yield High</u>	Aug 21 Yield <u>Low</u>	Following Yield <u>Highs</u>
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 as well as the related low in the US dollar around early February. Over the past month, the UST 10 year yield ascended to 3/2/23's 4.09pc.

Consumer price inflation measures in America and elsewhere continue to point to higher yields for the UST 10 year and related global marketplaces. The Federal Reserve and most other leading central banks swear allegiance to defeating excessive inflation. Let's focus on the American scene.

Unnerving United States year-on-year increases in consumer price inflation, though still far above the Fed's revered two percent inflation target, have slowed. However this inflation deceleration has not come close to attaining revered inflation targets.

Scan US consumer price statistics (CPI-U, all items; Bureau of Labor Statistics; see Tables 1 and 5; 2/14/23; next release 3/14/23). 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, but steadied at 6.4pc year-on-year in January 2023.

The CPI-U excluding food and energy grew at a 6.6 percent year-on-year pace in September 2022. It has descended modestly in recent months, with January 2023's a 5.6 pc year-on year rise, but remains lofty.

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

The FOMC 2/1/23 Statement heralded: "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 preached 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."

Moreover, "too high" inflation remains a global problem, not only a US one. According to the International Monetary Fund's fairly 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 clairvoyant 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," let's note their word "starting". Also, the IMF declares "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 oracle 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.) So for at least calendar 2023, many nations may face relatively high interest rates.

Thus the Fed's December 2022 Economic Projections probably continue to offer guidance on future Fed monetary policy and US interest rate trends. 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 2.00 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 United States 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). 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 inflation barometer. Then the US 10 year yield will hover at 4.50 percent or higher.

The United States federal debt situation warns of a long-term trend for higher US Treasury yields. Note the substantial demand for credit (big budget deficits) and the related large and growing public debt level as a percentage of GDP. See the Congressional Budget Office's "The Budget and Economic Outlook: 2023 to 2033" (2/15/23). For example, federal debt held by the public as a percentage of GDP rises from 98.0 percent in fiscal 2023 (compare the 46.9 percent average for the 1973-2022 average) to about 118.0 pc of GDP in 2033, soaring to 195.0 pc of GDP in 2053 (See "By the Numbers", Table 1-1, and Figure 1-2).

In the near term, a debt ceiling crisis and talk of default might boost UST yields. In any case, since Congress is divided (Democratic Senate, Republican House of Representatives), national cultural divisions are severe, and the 2024 election season beckons, no notable progress on reducing long run deficit problems will occur anytime soon.

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. 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, have helped to keep inflation expectations and thus longer term UST yields relatively modest despite ongoing high CPI-U and personal consumption expenditure inflation statistics.

In general, from around the beginning of calendar 2022 until mid-October 2022, 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 sovereign 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 for 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 128.3 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 until around early February 2023 thus interrelated with (confirmed) the price rallies in the S+P 500, emerging marketplace stocks, and many other search for yield playgrounds.

US DOLLAR ACROBATICS

"I love the dough, more than you know Gotta let it show, I love the dough": The Notorious B.I.G. remarks in "I Love the Dough" ****

"US Dollar and Other Marketplace Adventures" (2/5/23) concluded: "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."

What factors indicate the likelihood of United States dollar weakness over the murky "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 wizards 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".

The Federal Reserve releases a real Broad Dollar Index (H.10; January 2006=100; monthly average; 3/1/23 is the latest release) as well as a nominal Broad Dollar Index (daily data; 2/27/23 release; 2/24/23 most recent datapoint) covering both goods and services.

The real Broad Dollar Index's attained its high (monthly average; Fed H.10; goods and services: January 2006=100) in October 2022 at 121.2. From the major bottom over 11 years before then in July 2011 at 83.9, the BDI skyrocketed 44.5 percent. From the important interim low over eight years ago in July 2014 at 88.9, it soared 36.3pc. The BDI traveled 21.0pc from February 2018's 100.2 trough to its October 2022 summit. The real BDI jumped substantially, 17.2 percent, from January 2021's 103.4 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 most of 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.

The "US Dollar and Other Marketplace Adventures" essay nevertheless emphasized: "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 respected 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.

Also, the dollar's weakness which emerged in 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 dollardenominated 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. 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?

Thus for the near term, and also 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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	1Q20	Key Low	Percent Fall	Next	PC Rally
	<u>High (date)</u>	<u>Level (date)</u>	<u>from 1Q20 High</u>	<u>Highs (date)</u>	<u>from 2021 Low</u>
Nominal Broad Dollar Index	126.1 (3/23/20)	110.9 (1/6/21) 110.5 (6/1/21)	12.4pc	123.9 (7/14/22) 123.5 (8/22/22) 128.3 (9/27/22) 128.3 (10/19/22)	16.1pc

Note the initial low in the nominal Broad Dollar Index low in early January 2021 (1/6/21) occurred close in time to the peak on 1/4/21 in US dollar-denominated government bonds issued by emerging market countries (iShares EMB ETF top at 116.09) as well as the emerging marketplace stocks pinnacle on 2/16/21 (iShares EEM ETF top at 58.29).

The real Broad Dollar Index peaked in April 2020 at 113.4. It declined to 103.4 in January 2021. With May 2022's 114.3, 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 116.6, it appreciated to 119.5 in September 2022 and 121.2 in October 2022, smashing 6.9 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 through it to reach 9/27/22's and 10/19/22's 128.3 (see also 11/3/22's 128.1).

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 (which began with 10/13/22's 3492) and many other key global stock marketplace signposts.

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).

Following late September/October 2022, the US dollar depreciated a moderate amount. The real Broad Dollar Index ebbed to 118.8 in November 2022, 116.3 in December 2022, and 114.2 in January 2023, a 5.8 percent decline. February 2023's real BDI inched up to 114.8. A five percent decline from October 2022's 121.2 equals 115.1, a ten percent tumble gives 109.1, a fifteen percent drop 103.0, with a twenty percent crash 97.0.

The nominal BDI's low following its September/October 2022 highs around 128.3 is 2/2/23's 118.3, a 7.8 percent slide. A five percent fall in the nominal BDI gives 121.9, a ten pc correction 115.5, a fifteen pc one 109.1, with a twenty pc collapse 102.6.

However, the real BDI increased slightly to 114.8 in February 2023 (holding above April 2020's top at 113.4); the US dollar "in general", using the nominal BDI, appreciated 2.8 percent from 2/2/23's trough to its following high at 121.6 on 2/24/23 (most recent datapoint). Thus the US dollar remains quite strong despite its depreciation since autumn 2022.

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 rests above or even "around" April 2020's 113.4 prior top, it still would be quite powerful 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.

A HIGH WIRE ACT: THE US STOCK MARKETPLACE

"Money is the key to end all your woes

Your ups, your downs, your highs and your lows", chant Run DMC in "It's Like That"

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.

Thus the probable current and long-term prospects for generally sustained higher US and worldwide interest rates probably will tend to weaken the S+P 500 and other stock marketplaces (and other "search for yield" asset classes). Although rising yields and some US dollar strength will encourage S+P 500 retreats, it will be probably will be difficult for the S+P 500 to breach its October 2022 depth by much in the absence of a sustained global recession.

The Fed probably will tolerate a brief recession to defeat the evil of excessive inflation, but it (and of course Wall Street and Main Street and politicians) likely would hate a severe recession. In today's international and intertwined economy, further substantial price falls (beneath October 2022 lows) in the stock and corporate debt price 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.

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 heavenly 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.

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).

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 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.

Underscore the similar timing of the rally in the S+P 500 from its October 2022 bottom and the US dollar's depreciation for several months beginning in fall 2022. The recent rally in the dollar helped push the S+P 500 downhill; its low since 2/2/23 is 3/2/23's 3928.

	1Q 2020 <u>High (date)</u>	1Q 2020 <u>Low (date)</u>	Interim <u>High</u>	Take-Off <u>Low (date)</u>	Peak and Other <u>Highs(date)</u>
S+P 50	00 3394 (2/19/20) 3137	2192 (3/23/20)	3588 (9/2/20)	3209 (9/24/20) 3234	4819 (1/4/22)
	(3/3/20)			(10/30/20)	4637 (3/29/22)
				Key 2022 Lows	4513 (4/21/22)
				4115 (2/24/22) 3637	4308 (4/28/22)
				(6/17/22) 3722	4325
				(7/14/22) 3492	(8/16/22) 4195
			****	(10/13/22)	(2/2/23)

All else equal, United States dollar feebleness tends to inspire ascents in the nominal value of dollar-denominated assets, including stocks.

Nevertheless, in practice that tendency is not inevitable. History reveals that the dollar can depreciate substantially alongside notable falls in the S+P 500 and "related" stock marketplaces. For example, contemplate 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.

Although the cultural past does not necessarily (inevitably) repeat itself, either entirely or even partly, let's venture back to US Treasury yield patterns. The New York Federal Reserve Bank publishes history and graphs indicating the spread relationship (basis point differential) of the UST 10 year note (they label it a "bond") yield less the three month T-bill rate (bond equivalent basis). A negative number indicates that the yield curve is negatively sloped, with the three month T-bill yield exceeding that of the UST note.

Going back to around 1959, the development of a negatively sloped yield curve (monthly average) often has preceded ("led to") a US recession. The latest NY Fed data (2/8/23 release) gives a differential of 113 basis points for January 2023.

A notable recession probably will be bearish for the S+P 500 and many other stock marketplaces.

HOME ON THE RANGE

"'Cause it's all about money, ain't a damn thing funny You've got to have a car in this land of milk and honey", proclaims Grandmaster Flash and the Furious Five in "The Message"

The American real estate marketplace of course is complex, as is its relationship to other financial marketplaces. US single-family home price trends nevertheless entangle with and offer an interpretive window on levels and trend in American stock and interest rate playgrounds.

From June 2022's peak at \$420,900 to January 2023's \$363,100, the sales price of existing single-family homes slipped 13.7 percent (not seasonally adjusted; National Association of Realtors, 2/21/23; 3/21/23 next release). This notable US home price "correction" (and the related decline in single-family sales volume, which commenced in January 2022) obviously occurred alongside trends of rising US Treasury and mortgage rates. The slump in house prices confirms the decline in US stocks and warns of mediocre GDP growth. Especially as homes are a very important part of consumer (household) net worth, if the falling home price trend persists, it probably will portend a recession.

COMMODITY CARTWHEELS

The Temptations sing in "Ball of Confusion (That's What the World Is Today)": "Ball of confusion Oh yeah, that's what the world is today... And oh, the beat goes on".

Previous essays detailed the interrelations in theory and in marketplace practice between commodities "in general" and other financial domains such as the US dollar, interest rates, and stocks. 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 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, as in 2007-08 as the Goldilocks Era ended and the global economic disaster unfolded. The S+P 500 peaked on 10/11/07 at 1576, many months before the

peak in the S&P GSCI. Yet note that July 2008's major high in the S&P GSCI (7/3/08 at 894) occurred not long after the S+P 500's final top, 5/19/08's 1440. ****

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 <u>High (date)</u>	1Q 2020 <u>Low (date)</u>	Nov 2020 Take-Off <u>Low (date)</u>	Take-Off <u>Points</u>	Highs <u>(to date)</u>
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) 632.1 (2/18/22) 648.0 (2/25/22) 679.3 (3/15/22) 632.9 (7/14/22) 591.8 (9/28/22) 591.1 (11/28/22)	853.3 (3/8/22) 825.4 (6/8/22) 705.3 (7/29/22) 703.2 (8/29/22) 671.5 (10/10/22) 671.1 (11/7/22) 622.1 (1/24/23)

New Lows Under 9/28 and 11/28/22 Levels

568.9 (12/9/22); 569.2 (1/5/23); 564.6 (2/6/23)

On balance, the S+P 500 and commodities in general have traded fairly closely together in time and price terms since early 2022. Russia invaded Ukraine on 2/24/22. The S+P 500 peaked in January 2022, the broad S&P GSCI in early March 2022. The S+P 500's 1/4/22 pinnacle preceded the towering high for 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. Consequently, a sustained breach of the GSCI's December 2022/February 2023 support range around 565/570, given the longer-run trend of rising US Treasury rates and a still-strong real Broad Dollar Index, probably will be bearish for the S+P 500.

A real Broad Dollar Index bull trend and high BDI levels and the pattern of rising yields in the UST 10 year note 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 pinnacles. The real Broad Dollar Index peaked in April 2020 at 113.4. After an extensive rally from January 2021's 103.4 low, May 2022's 114.3 exceeded 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 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.

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. It 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 toppled and resumed its decline from 705.3 (7/29/22)/703.2 (8/29/22) alongside the fall in the S+P 500, which slumped from 8/16/22's 4325 (and 8/26/22's 4203).

Admittedly, 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.

See 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 (128.3 on 9/27/22 and 10/19/22), and 10/13/22's 3492 trough 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.

Yet despite 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 relatively weak. The GSCI's descent totaled 33.8 percent from March 2022's 853.3 peak to 2/6/23's 564.6, a terrifying bear move for commodities investors and other owners of this "alternative asset class". The GSCI rests well beneath its summer 2022 interim tops just above 700.0, as well as 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). The 10/10/22 GSCI high remains intact. Does this relatively feeble GSCI reflect growing recessionary forces?

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: "US Dollar and Other Marketplace Adventures" (2/5/23); "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).

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