GIMME SHELTER (AND FOOD AND FUEL)

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In "Gimme Shelter", The Rolling Stones sing: "Ooh, a storm is threatening
My very life today
If I don't get some shelter
Ooh yeah I'm gonna fade away"

CONCLUSION AND OVERVIEW

Not long after the end of the 2007-09 global economic disaster, American home prices embarked upon a sustained and substantial bull move. Economic growth, population increases, the American Dream's ideology praising home ownership, widespread faith that a home represents a long run store of value, and tax incentives for home acquisition encouraged that rally. In recent years, the Federal Reserve's sustained interest rate yield repression and extravagant money printing policies also boosted the consumer's ability (reduced the cost) and inclination to buy homes. Homes, like stocks and corporate bonds and even many commodities, became part of the "search for yield" universe. The dramatic home price rally has not been confined to America.

The international coronavirus epidemic which emerged around first quarter 2020, made working in the office (or learning at school) appear dangerous. This inspired a ravenous appetite to acquire homes (or more space or quality at home) to escape health risks, encouraging the latest stages of the bullish house trend. Both central bankers and governments acted frantically to restore and ensure economic recovery and growth. Thus housing prices, benefited not only by the beloved Fed's easy money policies, but also from monumental federal deficit spending.

Moreover, given the acceleration and substantial levels of American and international consumer price inflation over the past year or so, the general public increasingly has seen home ownership as an "inflation hedge", not just as an indication of American Dream success and "the good life".

Over the next several months, the intersection of the current major trend of increasing American and other interest rates alongside a gradually weakening United States (and worldwide) economy probably will significantly reduce the rate of American home price increases. Fears that a notable slowdown (or stagflation), and maybe even a recession, have developed. Even the ivory-towered Federal Reserve finally espied widespread and sustained inflation. So central bankers nowadays are engaging in monetary tightening. Further rounds of mammoth government deficit spending currently are unlikely. Public debt in the US and elsewhere rose immensely due to the huge government expenditures related to the coronavirus pandemic and the related quest to create and sustain economic recovery. As the US November 2022 election approaches, that country is unlikely to agree anytime soon on another similar deficit spending spree to spark economic growth. Some signs of moderation in housing statistics hint that home price increases probably will slow and that prices will level off. Thus the peak in American home prices will lag that in the S+P 500.

In regard to the present robust bull price pattern for US homes, there is a greater probability than most audiences believe that US home price increases will slow substantially. Nominal house prices eventually may even fall some. It surely is unpopular (and arguably heretical) nowadays to

suggest that American and other national house prices eventually may decline. Yet history, including the passage from the Goldilocks Era to the global economic crisis period, demonstrates that home values, like other asset prices, can fall significantly.

"Runs for cover" increasingly are replacing "searches for yield" in the global securities playground by "investors" and other owners. Price declines in American and other stock marketplaces have interrelated with higher yields for (price slumps in) corporate debt securities and emerging marketplace US dollar-denominated sovereign notes and bonds.

Further declines in US consumer confidence probably will take place. Sustained lofty consumer price inflation (encouraged not only by core CPI components such as shelter, but also by high levels in food and fuel prices) distress consumers. At some point, generalized inflation accompanied by higher US Treasury and mortgage yields can slash home buying enthusiasm, especially if home-owning affordability tumbles. Although history shows that price and time relationships for the S+P 500 and US home prices are not precise, and though equities and houses have different supply/demand situations, stocks and home prices roughly "trade together" over the misty long run. In addition, substantial declines (and increases) in American consumer confidence intertwine with (confirm) major trends in the S+P 500. Consumer confidence has been slipping for several months; the S+P 500 probably established a major peak in early January 2022, and its decline of around twenty percent fits the conventional definition of a bear market.

In recent years, numerous marketplace guides have included commodities "in general" as a worthy listing in their menu of asset classes.

Assorted commodities of course have their own supply/demand profiles. Of course in practice, not all individual commodities necessarily trade "together" (in the same direction, around the same time span). The price pattern of the petroleum complex often is particularly important for storytelling (and hopes and fears) regarding the "overall" commodities situation and trend. However, food price levels and trends also substantially influence commodity movements "in general" as well as consumer and political attitudes regarding them.

Consumer spending has a huge share of US GDP, about 68.6 percent as of 1Q22 (St. Louis Fed). Declining confidence on Main Street eventually can result in reduced consumer spending and thereby weaken economic growth. Sustained high consumer price inflation troubles consumers and tends to lower their confidence. Sharply rising and sustained very high commodity prices in key arenas such as petroleum and food not only boost consumer (and other) price inflation, but also diminish consumer (and business) confidence. The sharp year-on-year price rises and lofty elevations for commodities in general probably have helped consumer confidence to retreat. Therefore, the sustained "very high" commodity prices, especially in the arenas of energy (for example, in NYMEX petroleum and natural gas) and food, are a factor helping to undermine the bullish US home price trend.

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 between commodities and the S+P 500. Remember that in 2007-08, the S+P 500's price peak 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 attained its pinnacle about nine months later, on 7/3/08 at 894. ICE Brent/North Sea crude oil (nearest futures continuation) achieved its summit on 7/11/08 at 14750. 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.

Long run marketplace history nevertheless indicates that the price pattern for the S+P 500 and commodities in general converge eventually even if they diverge (have notable leads and lags) for several months.

Important highs for commodities in general occurred in early March 2022. A sharp and very substantial (but not an enormous) decline followed. However, prices have rebounded considerably. Some commodities (either in the spot/nearby marketplace, or deferred month domains, or both) have attained new highs.

Especially in times where supply interruption fears prevail, many commodity inventory holders choose to hold some extra supply (increase coverage) "just-in-case". In that regard, also picture a growing inclination to hoard supplies. Compare the low inventory level holding approach of a "just-in-time" attitude. Yet overall inventories (days coverage) can fall (due to the supply/demand balance) in arithmetic and days coverage terms even if firms do not alter their inventory management preferences. The explosive price leap in petroleum, food, and many other commodities to their March 2022 highs evidenced that the global supply/demand and inventory picture for commodities briefly entered a "have-to-have" ("buy at any price") situation.

As the Russia/Ukraine war continues, commodity prices generally will remain high, even if they do not venture much above those achieved recently, partly because fears about commodity price shortages probably will persist. However, current supply/demand and inventory trends in some commodities warn of a significant risk of occasional brief price spikes, and maybe even sustained further price climbs, especially in the spot (physical) and nearest futures continuation marketplaces. Petroleum is one example of this. OECD industry days coverage (and "free supply"/readily available inventory) probably will keep falling to some extent despite governmental strategic oil reserve sales. The ongoing bull moves in deferred month petroleum contracts (such as NYMEX December 2022 crude oil) and distant month intramarket spreads (note the substantial and increasing backwardation in the NYMEX December 2022 less December 2023 crude oil spread) also signal ongoing and future supply tightness (low inventories).

Even if the Ukraine/Russia combatants agree on a ceasefire or peace agreement, supply (and supply chains) for many commodities may be constrained for a while.

Suppose commodities "in general" do not exceed their recent peaks but linger relatively close to them. That situation still probably will continue to place downward pressure on the S+P 500. These sustained rather high commodity prices probably will keep fueling inflationary concerns and eroding consumer confidence. What if an array of key commodities (the oil complex, and watch especially refined products; wheat and other key foods) travels close to or sustains moves above their March 2022 (or subsequent) highs? That probably will be bearish for stocks and home prices in America and elsewhere, for such action will magnify fears regarding both inflation and an eventual recession.

HOUSING

"Home is the nicest word there is." Laura Ingalls Wilder, author of the "Little House" books, which inspired the famed television show, "Little House on the Prairie"

According to the Bank for International Settlements, as of fourth quarter 2021, "In real terms, global house prices now exceed their immediate post-GFC [Great Financial Crisis of 2007-09] by 27%" ("Statistical release: BIS residential property price statistics in Q4 2021"; 2010=100; 5/25/22). Advanced nations display significantly greater real increases since the GFC than emerging economies, 37.0 percent versus 19.2pc. What about America since around the time of the coronavirus pandemic? Since 4Q19 up through 4Q21, US real house prices jumped by about 20.0 percent.

Despite ongoing inflation and thus higher nominal house prices, real house prices in the United States and most other nations surveyed by the BIS probably are at 4Q21 levels or even higher.

Given the US's crucial role within the worldwide economy, and as consumer (household) real estate plays an important part in America's economy, let's focus on the American real estate situation.

The Federal Reserve's "Financial Accounts of the United States" (Z.1; 4Q21, 3/10/22; next release 6/9/22) statistics are in nominal terms. Its data nevertheless offers insight on the gigantic growth in American household net worth in recent years and reveals the enormous value of "real estate" on the household balance sheet. Note Table B.101.h, "Balance Sheet of Households"; footnote 2 provides a broad definition of real estate.

From 2016 to end-2021, US household net worth (assets less liabilities) soared from about 89.1 trillion dollars to \$142.2 trillion dollars, a magnificent \$53.1 trillion and 59.6 percent ascent.

What about the real estate portion of US household wealth? On the asset side alone, real estate increased 15.5 percent in 2021 year-on-year (\$38.1 trillion/\$33.0tr), and about 52.6 pc since 2016. Subtract the liabilities (loans) of one-to-four family residential mortgages to generate a rough guide as to US household real estate net worth. Thus at end 2021, US consumer real estate net worth stood at a towering \$26.4 trillion, up 72.1 percent from 2016's \$15.3tr (gaining about 19.5pc versus 2020's \$22.1tr).

The increase in American home values and household real estate net worth probably has continued into calendar 2022 to date.

The S&P CoreLogic Case-Shiller US National Home Price Index ("HPI"; nominal terms; single-family homes; January 2000=100) in March 2022 leaped 20.6 percent year-on-year, up from February 2022's 20.0 percent year-on-year climb. March 2022's 294.5 HPI surpasses the July 2006 Goldilocks Era's 184.6 ceiling by 59.5 percent, and it skyrockets 119.8 percent from February 2012's mournful 134.0.

According to the National Association of Realtors, the median price for existing family homes in March 2022 surged 15.2 percent year-on-year.

According to the Census Bureau ("Housing Vacancies and Homeownership", Table 11A), the median US asking rent (current dollars) in 1Q22 rose 2.4 percent year-on-year versus 1Q21. This falls beneath 1Q21's 17.8pc flight above 1Q20. However, perhaps the Census Bureau's perspective on rent increases for recent months is conservative, at least for some important locations. Some news reporting speaks of significant year-on-year rent increases in calendar 2022 to date.

America's consumer prices as measured by the CPI-U (all items) flew 8.3 percent higher year-on-year in April 2022, continuing to manifest the pattern of very substantial inflation (Bureau of Labor Statistics; 5/11/22).

The "shelter" category represents 32.5 percent of the CPI-U. Thus home and rental price trends represent critical elements of the overall CPI-U. In April 2022, shelter costs increased 5.1 percent year-on-year. Food (13.4 percent of the index) ascended 9.4pc year-on-year in April 2022. "Energy" (8.3pc of the CPI-U) spiked 30.3pc in April 2022 versus April 2021. Within the energy territory, motor fuel (4.7pc of the total CPI-U) raced up 44.0 percent year-on-year. For the CPI-U without food and energy, prices motored upward 6.2 percent year-on-year in April 2022.

Despite the confidence (happiness)-inspiring rise in United States national house prices, a survey of several US housing supply/demand situation unearths some bearish warning signs for home price trends. For example, US residential sales of new single-family houses in April 2022 plummeted 16.6 percent relative to March 2022. April 2022's level retreated by a sharp 26.9 percent versus April 2021. "Months supply", the ratio of houses for sale to houses sold and thus a viewpoint on inventory, has grown. April 2022's ratio was 9.0, up from March 2022's 6.9 and well above April 2021's 4.7 months (Census Bureau, 5/24/22).

The NAHB/Wells Fargo Housing Market Index ("HMI") surveys National Association of Homebuilders members regarding market conditions for the sale of new homes. The national HMI peaked in November 2020 at 90, far above January 2009's economic disaster floor of eight, and well above the dismal coronavirus trough in April 2020 at 30 (March 2020's was 72). The HMI on balance edged lower but remained rather strong for many months after November 2020. However, this yardstick tumbled from 77 in April 2022 to 69 in May 2022.

The National Association of Realtors ("NAR": 5/19/22) reported that existing home sales fell in April 2022 for the third consecutive month, slipping 2.4 percent relative to March 2022 and 5.9 percent year-on-year. Inventory has edged higher. At the current sales pace, April 2022 inventory represents 2.2 months, up from 1.9 months in March 2022 and the low of 1.6 months in January 2022 (and about even with April 2021's 2.3 months). Admittedly, current months of supply are still low; compare calendar 2020's 3.1 months and calendar 2019's 3.9 months.

According to the NAR (5/26/22), pending home sales (signed housing contract activity) fell for the sixth consecutive month in April 2022, down 3.9 percent from March 2022 and a 9.1pc erosion year-on-year.

Based on the National Association of Realtors' Affordability Index ("AI") statistics, existing single-family homes have become much less affordable over the past several months (5/6/22). The NAR says a value of 100 means that a US family earning the US median income has exactly enough income to qualify for a mortgage loan on a median-priced home (assuming a 20 percent

down payment). An index greater than 100 indicates that a family earning the median income has more than sufficient income to qualify for a mortgage on a median-priced home.

The AI was 175.2 in March 2021 (154.4 in April 2021). The AI's level in general was rather high from 2019 through 2021 (2019's at 159.7, 2020's at 169.9, with overall 2021's at 153.5. In September 2021, it stood at 151.0. Unfortunately, the Index has slumped to 134.6 in February 2022 and 124.0 in March 2022. Although this index as of March 2022 resides significantly above 100, does this trend toward lower affordability suggest that elevated prices alongside higher interest rates eventually will reduce demand for homes significantly, and thereby help to weaken house prices? Because home prices probably have increased some and interest rates have tended to rise over the past two months, affordability probably is less now than in March 2022.

Anecdotal evidence has appeared of an increasing number of owners and renters unwilling to move to a new location due to the significantly higher cost of a similar new place. See the NYTimes article "Americans Eye Housing Market, and Stay Put (5/28/22, pp A1, 9).

Rising rents probably are pressuring many consumers, especially those with lower or fixed incomes. Evictions loom for quite a few renters.

Marketplace viewpoints regarding "too high", "high", "expensive", "too low", "low", "cheap" (and average, typical, normal, reasonable, rational) prices, as well as overvaluation and undervaluation (and fair or reasonable value), reflect subjective perspectives (opinions). And alleged overvaluation (undervaluation) can persist for quite some time, or even increase, perhaps substantially.

Many people view a home as an "inflation hedge", not just as a place to live. What if inflation gets even worse? Plus available inventories of houses may be "low". Also, prices can rally (or decline) in one area but not in another. After all, the home supply/demand situation can vary between countries, regions within nations, and across housing sectors (such as luxury relative to middle-class structures). Anyway, are house prices nowadays around the globe "high" or "too high"?

The BIS says global house prices are "high by historical standards" (5/25/22 "Statistical Release"). The European Central Bank's "Financial Stability Review" mentions that Euro Area residential real estate market price increases have resulted "in increasingly stretched valuations". This guardian adds: "In the current low interest rate environment, increased sensitivity of house price growth to changes in real interest rates makes substantial house price reversals more likely." (See section 1.5; 5/25/22).

So if home prices "in general" around the world are at least "high", and given the rising international interest rate (and thus mortgage rate) trend, such "overvaluation" at some point probably will slow the rate of price increase, and home prices eventually may decline. Whether the worldwide economy enters a stagflation phase or even a recession will matter for real estate trends. If the S+P 500 sustains a collapse of greater than 20 percent (the conventional definition of a bear market), that boosts the chances for the eventual emergence of a sideways or even declining pattern in American (and other) nominal home prices.

Housing prices can lead or lag marketplace trend changes in the S+P 500. The Case-Shiller National Index price high of July 2006 at 184.6 preceded the S+P 500's summit on 10/11/07 at

1576, the Case-Shiller's February 2012's price bottom at 134.0 (a 27.4 percent bear move) occurred considerably later than the S+P 500's 3/6/09 basement-level depth at 667.

Very long run history shows that significantly climbing United States interest rates have preceded noteworthy peaks in key stock marketplace signposts such as the Dow Jones Industrial Average and the S+P 500. An extensive trend of US Treasury note and other sovereign and corporate yield increases led to the S+P 500's 1/4/22 pinnacle at 4819 and the notable decline thereafter (interim highs in the S+P 500 on its path down include 3/29/22's 4637), as well as significant falls in other equity signposts. Assisted by higher interest rates (including mortgage ones), the US stock marketplace downtrend probably (eventually) will lead American house prices lower.

FOOD

In William Shakespeare's "As You Like It" (Act II, Scene III), Orlando asks: "What, wouldst thou have me go and beg my food? Or, with a base and boisterous sword, enforce A thievish living on the common road?"

The United Nations Food and Agricultural Organization's "Monthly Real Food Price Index" measures the monthly change in an international basket of food commodities back to 1990 (2014-16=100; 6/3/22). The Real Food Price Index covers five commodity groups: cereal, vegetable oil, dairy, meat, and sugar.

The recent high for the Real Food Price Index ("RFPI"), March 2022's 156.3 achieved a new record, soaring 69.7 percent from May 2020's 92.1 (November 2018 trough was 90.6; December 2015 bottom 89.0). Prices thereafter have remained celestial, with April 2022's at 154.9 and May 2022's 154.0 bordering this.

The prior RFPI summits were June 2008's 128.9 and December 2010's 129.4. Regarding June 2008's pinnacle, compare the timing of the petroleum complex peak in July 2008 (Brent/North Sea crude oil nearest futures top 7/11/08 at 14750) and the S+P 500's 5/19/08 final top at 1440 (major high 10/11/07 at 1576; nominal prices for oil and the S+P 500). The broad S+P GSCI (commodities "in general") attained its crest on 7/3/08 at 894.

The threat of war between Russia and Ukraine prior to Russia's actual invasion of Ukraine on 2/24/22, as well as the invasion itself and subsequent conflict, surely encouraged the RFPI's notable spike. However, the six month average from May 2021 through October 2021 at 127.4 already was elevated from the longer run historical perspective (compare the June 2008 and December 2010 tops), not merely in regard to May 2020's low at 92.1. And the May/October 2021 average represents substantial real inflation, 38.3 percent, relative to May 2020's height.

Ukraine produces 12 percent of the world's wheat and 15pc of its corn, as well as 50pc of global sunflower oil (Financial Times, 5/31/22, p3). Ukraine is a major food exporter. "As Food Remains Trapped in Ukraine, Leaders Warn of Global Unrest", shouts the NYTimes (5/25/22, pA5). Many agricultural forecasters warn of famine in some regions.

Ongoing fighting between Ukraine and Russia, especially to the extent their battle decreases Ukrainian agricultural production and exports, will tend to keep prices for many agricultural prices elevated.

In addition to the FAO's Food Index, monitor price trends of individual important agricultural commodities (both physical/nearby prices as well as forward months; including their intramarket spreads). Keep in mind that price trends for a given agricultural (or any other) commodity can vary depending on its delivery location and grade (quality).

CBT wheat (nearest futures continuation) raced higher from 2/3/22's 740, spiked up from 3/1/22's 951, and attained its all-time high with 3/7/22's 1425. The March 2022 summit surpassed 2/27/08's 1334 pinnacle, 7/23/12's 947 top, 3/20/96's high at 750, and 2/26/74's peak at 645. However, its current level at 1041 (6/3/22 close), though still lofty, withers about 27.0 percent from 3/7/22's summit; it also stands beneath 5/17/22's lower interim top at 1284.

FUEL

X the Band, "Water & Wine" declares: "There's a heaven and a hell
And there's a live to tell
Who has to wait at the end of the line
Who gets water and who gets wine"

The following table covering first quarter 2020 to the present enlists the S&P broad GSCI index as a guide to commodities in general, although it is heavily petroleum-weighted. Trends for various commodities obviously can vary to some extent, and perhaps substantially; after all, supply/demand situations across the commodity universe are not necessarily identical. ICE Brent/North Sea and NYMEX crude oil are the nearest futures continuation contracts unless otherwise indicated.

The huge rallies in the GSCI and petroleum have helped to fuel consumer price inflation in the United States (see the CPI-U), the OECD, and elsewhere. Regarding the increases in the US and OECD's consumer price measures since their troughs around end 2020, remember the timing of the November 2020 take-off lows for the GSCI and Brent/North Sea and NYMEX crude oil (nearest futures continuation).

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

	1Q 2020 <u>High (date)</u>	1Q 2020 Low (date)	Nov 2020 Take-Off Low (date)	Recent Take-Off <u>Points</u>	High (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	853.3 (3/8/22)

(12/20/21)	811.3
595.2	(6/3/22)
(1/24/22)	
627.7	
(2/9/22)	
632.1	
(2/18/22)	
648.0	
(2/25/22)	
679.3	
(3/15/22)	

The broad GSCI collapsed 20.4 percent from its 3/8/22 top to 3/15/22's 679.3. The broad S&P GSCI's recent high, 6/3/22's 811.3, edged above the 3/24/22 (789.7), 4/18/22 (784.1), and 5/5/22 (785.9) minor tops.

	1Q 2020 <u>High (date)</u>	1Q 2020 Low (date)	Nov 2020 Take-Off Low (date)	Recent Take-Off <u>Points</u>	High (to date)
ICE Brent/ North Sea Crude Oil (nearest futures)	7175 (1/8/20) 6000 (2/20/20) 5390 (3/3/20)	1598 (4/22/20)	3574 (11/2/20)	6572 (12/2/21) 6928 (12/20/21) 8504 (1/24/22) 9012 (2/18/22) 9600 (2/25/22) 9693 (3/16/22)	13913 (3/7/22) 12528 (5/31/22)

Brent/North Sea crude oil cratered 30.3 percent to 9693 on 3/16/22. However, after this precipitous and bloody drop from its early March 2022 high, Brent/North Sea resumed its price advance. With 5/31/22's high at 12528, it had climbed above interim highs at and 11484 (4/18/22) and 12374 (3/24/22).

Though petroleum prices slumped after the recent OPEC announcement of higher production, they rebounded rapidly. For example, Brent/North Sea crude oil's low on 6/2/22 was 11245, its 6/3/22 high 12145.

	1Q 2020 <u>High (date)</u>	1Q 2020 Low (date)	Nov 2020 Take-Off Low (date)	Recent Take-Off <u>Points</u>	High (to date)
NYMEX Crude Oil (nearest futures)	6565 (1/8/20) 5450 (2/20/20)	-4032 (4/20/20)	3364 (11/2/20)	6243 (12/2/21) 6604 (12/20/21)	13050 (3/7/22)

4866	8190	
(3/3/20)	(1/24/22)	
(3/3/20)	89.03	
	(2/18/22)	12046
	9006	(6/3/22)
	(2/25/22)	, ,
	9293	
	(4/11/22)	

NYMEX crude oil (nearest futures) plummeted 28.8pc to 4/11/22's 9293 (3/15/22 low 9353). NYMEX crude oil's recent advance broke through minor resistance at 10981 (4/18/22) and 11664 (3/24/22).

Thus far, on a nearest futures continuation basis, ICE Brent/North Sea and NYMEX crude oil have not broken above their early March 2022 highs. The Food and Agricultural Organization's Real Food Price Index ("RFPI") in the past two months has edged close to but has not surpassed March 2022's 156.3 record.

A review of the bullish price trend since December 2021 of actual deferred month crude oil contracts (such as NYMEX December 2022 crude oil) and related intramarket spreads (such as the December 2022 less December 2023 crude oil one) emphasizes the underlying inflationary trend within the petroleum complex. Trends of these forward petroleum marketplaces thereby also point out the substantial potential for oil to help keep the Consumer Price Index trend elevated for a while longer.

Both high oil prices and ongoing significant CPI-U inflation probably will inflict further damage on consumer and business confidence. Even a modest decline in oil prices probably will not improve consumer confidence much.

To the extent bullish petroleum (and other commodity) price trends assist in wounding consumer confidence (and incomes) and motivate the Fed and other central bankers to keep raising interest rates from their current still-low levels, that will help to slow (and perhaps may even assist a reverse in) home price gains.

	1Q 2020 <u>High (date)</u>	1Q 2020 Low (date)	Nov 2020 Take-Off <u>Low (date)</u>	Recent Take-Off <u>Points</u>	High (to date)
NYMEX Crude Oil (Dec 2022 contract)				6020 (12/2/21) 6314 (12/20/21) 6935 (1/3/22) 7494 (1/24/22) 7840 (2/28/22) 8080	10480 (3/7/22)

(3/9/22)	
8990	10719
(5/11/22)	(6/3/22)

The NYMEX December 2022 actual contract's 6/3/22 height breaks above not only its interim highs around 10000 (4/18/22's 9961, 5/17/22's 9999), but also its 3/7/22 top. Thus the bull trend for this deferred NYMEX contract has continued intact even though the March 2022 peak in NYMEX nearest futures continuation crude oil has not been surpassed.

If in fact free supply remains quite low for the given commodity, trends for deferred month commodity contracts may remain relatively bullish, even if their prices remain significantly beneath the summits previously achieved by its spot/physical (or nearest futures) marketplace benchmark.

NYMEX	197	1405
Intramarket	(12/2/21)	(3/9/22)
Crude Oil Spread	279	
(December 2022 contract price less Dec 2023 contract price)	(12/20/21)	
	540	
	(2/18/22)	
	695	
	(3/16/22)	
	696	1693
	(4/7/22)	(6/3/22)

The NYMEX crude oil December 2022 less December 2023 intramarket spread backwardation (near month higher than distant month) is substantial. The spread's acceleration to new highs above the March 2022 top, like the similar ongoing bullish move in the actual December 2022 contract itself, probably signals increasing supply tightness within the overall petroleum complex (as does the still very elevated nearest futures continuation NYMEX and Brent/North Sea crude oil prices).

At the moment, peace in the Russia/Ukraine war does not look imminent. Russia has not yet achieved its political objectives. Moreover, its current account surplus soared to a record \$58 billion in 1Q22 (Financial Times, 5/27/22, p10). Russia itself has sufficient food and energy resources. So it is unlikely to sue for peace right away.

Also, Russia may believe the resolve of the United States and its allies within NATO and elsewhere to support Ukraine and maintain strong sanctions against Russia may wane quite a bit over time. Why? In the US and elsewhere, notably ongoing high inflation, especially if GDP slows substantially or drops, might reduce inclinations to support Ukraine so vigorously. If the S+P 500 falls well below its recent low, and if home price increases slow significantly, that probably will worry US leaders and their economic and political friends even more (especially in as 2022 is a US election year).

Ukraine wants its territory back, is infuriated by Russian war crimes, and is getting massive economic and military assistance from America and others. So it does not seem in a hurry to capitulate or agree on a peace deal unless Russia makes notable concessions.

OPEC's May 2022 "Monthly Oil Market Report" (5/12/22) estimates total world consumption for full year 2022 at about 100.3 million barrels per day, a 3.5 percent rise relative to calendar 2021. Perhaps aggressive discounting by Russia will sustain its oil output at high levels for a while longer, but embargoes ultimately may slash that nation's 2022's output even if Russia continues to offer substantial price discounts.

OPEC states that first quarter 2022 OECD industry inventories (forward consumption) were about 57 days. Compare 1Q21's 66 days and 1Q20's 79 days.

Assume the oil embargoes on Russian petroleum imposed by the European Union (on oil imported via tanker), the United States, and other nations persist. All else equal, let's suppose Russian crude oil output slides about one mmbd on average over the final nine months of calendar 2022. Then global inventories will fall about 2.7 days. For OECD industry, that makes its inventories about 54.3 days, a relatively tight supply/demand situation. Imagine a two mmbd drop in Russian petroleum supplies over the course of calendar 2022. Unless new alternative supplies appear or global consumption dips from current estimates, resulting OECD commercial inventories of around 51.6 days will be very low. Along with US Strategic Petroleum Reserve sales, OPEC's early June 2022 decision to increase supplies by a couple of hundred thousand barrels a day relative to their prior output policy may mitigate the extent of these potential inventory drawdowns and related supply tightness, but probably only moderately.

In the absence of further new supply, it may take a notable fall in global petroleum demand (encouraged by a recession) to lower prices substantially and halt the declining trend in petroleum inventories.

Note that the EU ban on importing Russian petroleum includes refined products as well as crude oil.

The Grateful Dead stress in "Dupree's Diamond Blues": "Many a man's done a terrible thing Just to get baby that shiny diamond ring".

People obviously need food and fuel (and decent housing) more than they need diamonds. What will they do to get and keep the "basic necessities" of food and fuel?

Since Main Street consumers (and numerous businesses) obviously use refined products such as gasoline and diesel fuel rather than crude oil, let's scan their trends over the past several months. Strong refined oil products prices in gasoline and diesel fuel, not only high crude oil prices, suggest that petroleum prices probably will continue to maintain relatively high year-on-year inflation measurements for consumer price indices such as America's CPI-U. The high cost of refined oil products (even if they dip some from current high levels) probably will continue to help move US consumer confidence lower.

NYMEX RBOB/gasoline (nearest futures continuation) commenced a new stage in its major bull trend with its climb from 12/2/21's 1.880. Gasoline built an interim high with 3/7/22's 3.890, crashing 25.8 percent to 2.886 on 3/15/22. However, it resumed its stellar advance, reaching a new high at 4.310 on 6/3/22, soaring 129.3 percent from its December 2021 take-off point and marching 10.8 percent above 3/7/22's interim top. Significantly, deferred month NYMEX

gasoline contracts have achieved new highs recently. That for the December 2022 futures contract is 3.199 on 6/3/22.

NYMEX diesel (nearest futures) established an important interim low within its major bull pattern with 12/2/21's 2.007. Diesel roofed upward, established its initial top on 3/9/22 at 4.671. It swooned 37.2 percent to 2.933 on 3/15/22. Diesel thereafter blasted up to a heavenly 5.860 on 4/29/22. The later moments of this explosive rally represent a worthy example of a desperate have-to-have scramble for supplies (whether for business needs or to cover short positions). Though the nearest futures contract slumped to 3.525 on 5/19/22, it since has ascended sharply, reaching 4.350 on 6/3/22.

The brief spike in NYMEX front month diesel in late April 2022 (and that in early March 2022) underlines the bullish supply-demand situation (tight "free supply") in that commodity. However, the rally in nearest futures continuation should not obscure the bullish trend of more distant diesel contracts such as December 2022's. NYMEX December 2022 diesel contract has steadily rallied in recent months. Its interim high was 3/9/22's 3.220, and 6/3/22's 3.848 vaults over that.

The enormous long-running bull move in NYMEX natural gas (nearest futures continuation) also has significant inflationary consequences. Keep in mind the linkage of many electricity prices to natural gas trends. Based on the EIA's current inventory estimate for US natural gas at the end of build season 2022, US inventory in days coverage terms at the end of October 2022 probably will be very low. This US natural gas supply/demand outlook helps to maintain relatively high natural gas prices from the long run historical perspective, as well as the overall bull trend (see deferred month contracts as well). Even if the US natural gas bull move ends in the near term, and all else equal, a colder than normal 2022/23 winter will make the US natural gas marketplace vulnerable to price spikes. In contrast to its Strategic Petroleum Reserve, America does not have a strategic gas reserve.

Natural gas inventories in the European natural gas theater probably will remain fairly low due to the political fights between Russia and European nations related to the Ukraine conflict

NYMEX natural gas (nearest futures continuation) began its major bull move with 6/26/20's 1.432 bottom. After climbing to 6.466 on 10/6/21, prices retreated substantially, reaching an important bottom on 12/30/21 at 3.536. Compare the timing of that December 2021 low with those in the petroleum complex. Following that key late December 2021 trough, NYMEX natural gas (nearest futures) rallied enormously. Underscore the violent short-term upward flights in the Wild West of NYMEX natural gas (nearest futures continuation) over this bullish span. The price spiked to various interim tops: 7.346 on 1/27/22, then 8.065 on 4/18/22, and 8.996 on 5/6/22. The recent high in NYMEX natural gas (nearest futures) is 5/26/22's 9.401; 6/3/22's 8.539 close is still fairly close to that height.

The NYMEX winter 2022/23 calendar strip established an important low on 12/6/21 at 3.782. Its following high is 5/25/22's 9.014, with 6/3/22's close 8.017 about 11.1pc below that.

Although commodities in general (broad S&P GSCI) perhaps established a price peak around early March 2022, that does not preclude brief spikes in individual energy, food, and other marketplaces (and especially in the spot, physical or nearest futures continuation contract month; and in some intramarket spreads) toward or even above their prior pinnacles. The NYMEX petroleum and natural gas complexes offer examples of these. Such bullish moves probably

reflect a near term, have-to-have situation in which the "free supply" (readily available inventory) is extremely low. They also may suggest that available inventory for the commodity (at least at a given delivery location, and perhaps elsewhere) probably will remain rather low (even if not desperately so) for several more months.

Suppose nations, firms, and people believe petroleum, natural gas, agricultural, or base metal supplies are too low now or have substantial risk of being in short supply in the future. That increases the inclination of their buying spot physical supplies now (or for forward delivery) and thereafter, or hoarding the goods, which propels prices upward. "Buy now, for it may not be there later, or only at a higher price!" And to some extent, actual or anticipated inventory shortages decreases, at least for a while, the inclination of some inventory holders to sell, which likewise encourages price rallies.

Looking forward, such spikes may emerge intermittently in petroleum, natural gas, a base metal, or some agricultural marketplaces such as wheat, especially if the Russia/Ukraine war continues to be very active for the next several months.

The S+P 500's 1/4/22 pinnacle preceded that of the overall commodities complex (broad GSCI on 3/8/22 at 853.3) by about two months. This represents relatively modest divergence between those marketplace realms from the time parameter.

Note the price and time convergence between the S+P 500 and the overall commodities complex thereafter. Compare the drop-off dates of the interim highs in the S+P 500 subsequent to its 1/4/22 pinnacle at 4819, 3/29/22's 4637 and 4/21/22's 4513 with those in the broad GSCI, 3/24/22's 789.7 (following the 3/8/22 summit at 853.3) and 4/18/22's 784.1.

History indicates that major trend changes for commodities in general and the S+P 500 occur around the same time. Recall that both rallied from major bottoms around March 2020. However, divergence can exist for a while. In 2007-08, the high in the S+P 500 time and price pattern diverged from and preceded that in commodities by several months. At the dawn of the 2007-09 global economic crisis, the S+P 500 peaked on 10/11/07 at 1576. The broad GSCI peaked about nine months later, on 7/3/08 at 894. ICE Brent/North Sea crude oil attained its pinnacle on 7/11/08 at 14750. 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.

Using the broad GSCI as a benchmark, given the very high commodity price levels for early March 2022 from the long run historical perspective, it is unlikely that a bear marketplace trend finished in less than one month (broad GSCI 20.4 percent nosedive from its 3/8/22 summit to 3/15/22's 679.3). Thus March 2022's broad S&P GSCI top at 853.3 represents substantial resistance.

On the petroleum front, keep in mind the recent crude oil sales strategies by the US and others from their strategic petroleum reserves. And all else equal, over the long run, very elevated oil prices tend to encourage incremental production and diminish demand. According to the US Energy Information Administration, Lower 48 States crude oil production for the week of 5/27/22 marched up about 1.1 million barrels a day versus the prior year week, with cumulative output for the year to date up over 900mbd (8.9pc) relative to the comparable prior year period. OPEC recently agreed to boost crude oil production modestly relative to its prior plan. Might stratospheric oil prices (and inflation concerns and worries about economic growth) improve prospects for a deal on the Iran nuclear situation?

It will be very difficult for the broad S&P GSCI to break above the resistance wall created by 7/3/08's 894 (unless numerous commodities around the globe are bought in a feverish "have-to-have" inventory situation, which is not an impossible scenario, particularly if the Russia/Ukraine conflict remains substantial), and especially to exceed that elevation for an extended time. Such an inflationary increase probably would encourage economic feebleness, further damage consumer (and business) confidence, and push the S+P 500 down even more. That widespread economic weakness scenario likely would tend to reduce overall consumer and business demand for commodities, and this in turn eventually would help weaken prices for the commodity "asset class" in general.

In any event, price and time patterns in the broad S&P GSCI (commodities in general) and the S+P 500 probably eventually will converge.

MAIN STREET VIEWS: CONSUMER AND SMALL BUSINESS CONFIDENCE

In "The House of the Seven Gables" (Chapter 1), Nathaniel Hawthorne stresses: "the influential classes, and those who take upon themselves to be leaders of the people, are fully liable to all the passionate error that has ever characterized the maddest mob."

American consumers are spending significantly, in part by saving less. Households set aside only 4.4 percent of their after-tax income in April 2022, the lowest savings rate since 2008. Government aid assisted a savings build-up during the pandemic. Nominal incomes are higher, and unemployment is low, but substantial inflation poses a critical problem for the income and net worth of many Americans and others around the globe. And economic income and wealth inequality in America (and elsewhere) remain substantial.

Whether or not Main Street dwellers in America have substantial confidence in (optimism regarding) the economic situation reflects factors such as CPI-U inflation levels and trends (food and fuel prices capture headlines), their net worth and earnings levels and trends, and their employment prospects, which thereby influence their spending and investment levels. The Main Street consumer confidence attitudes thus intertwine with GDP growth and are relevant variables in assessing (or confirming) S+P 500 trends.

"Consumer confidence" statistical levels probably do not reflect only "economic" attitudes and economic phenomena and trends. The same probably is true, at least to some extent, for small businesses confidence yardsticks as well. Such confidence weathervanes do not only involve (reflect) economic phenomena, including consumer price inflation, GDP growth and economic assessments, home and stock price levels and trends, and the extent of economic inequality. Consumer (economic) confidence assessments also respond to political and social variables. Obviously the so-called economic universe interrelates with other cultural phenomena. And nowadays severe and wide-ranging cultural divisions and wars (and related anxieties and fears) are not confined to so-called economic topics (such as economic inequality), but extend across numerous political and social matters, and thereby to some extent influence consumer confidence. Both left and right wing populism have economic ideologies and consequences and reflect consumer grievances and hopes.

Rising house prices represent increased wealth, which tends to generate economic optimism, at least for one's own position, and perhaps in regard to that of others. Yet overall confidence measures have been falling.

The US Consumer Confidence Index (Conference Board; 1985=100; 4/26/22) was 106.4 in May 2022, down slightly from April 2022's 108.6. May 2022's level slumps substantially from June 2021's 128.9, which had neared the pre-coronavirus height (February 2020's 132.6; recall the timing of the first quarter 2020 peak in the S+P 500) and stood fairly close to July 2019's 135.8 top. The ongoing decline in this yardstick since June 2021, which thus commenced well before Russia's invasion of Ukraine, probably is a bearish signal for the American economy and US stocks. Although the Consumer Confidence Index ("CCI") sits well above the coronavirus period valleys of 85.7 (April 2020; not long after the S+P 500's March 2020 major bottom) and 87.1 (December 2020), further declines in the CCI toward those troughs will be ominous.

What about American small business confidence? Small businesses play a critical role in the American economy. Review the NFIB's "Small Business Optimism Index" ("Small Business Economic Trends", 5/10/22). This benchmark peaked in August 2018 at 108.8 (1986=100). Its February 2020 elevation on the eve of the coronavirus pandemic at 104.5 remained high. It plummeted to 90.9 in April 2020. It thereafter rebounded, reaching an interim high at 104.0 in October 2020. Though the Small Business Optimism Index ebbed to 95.0 in January 2021, it rallied to a subsequent top at 102.5 in June 2021, the same month as Consumer Confidence Index top. Like the Consumer Confidence Index, the Optimism Index has retreated, with March 2022's and April 2022's both at 93.2 and the low since June 2021. This slump in this Optimism Index, as well as March/April 2022's closeness to April 2020's bottom, have been bearish warnings for the US economy and S+P 500.

According to a May 2-22, 2022 Gallup poll, in May 2022 only 14 percent of American's rated current economic conditions as excellent or good, whereas 39 percent deemed them "only fair" and 46pc saw them as "poor". In May 2022, 20 percent viewed the economic outlook as "getting better", whereas 77pc perceived it as "getting worse".

A separate Gallup poll explores "Americans' Satisfaction With the Way Things Are Going in the U.S." On balance, Americans clearly are dissatisfied. The April 1-16, 2022 study shows 22 percent satisfied, 77pc dissatisfied, for a net dissatisfaction of 55 percent. This gloomy net dissatisfaction number admittedly is less severe than the dreadful net dissatisfaction of 77 for the January 4-15, 2021 survey around the time of the January 6, 2021 US Capitol insurrection (compare the global economic disaster era net dissatisfaction valley of 84; October 10-12, 2008). However, April 2022's net dissatisfaction is much higher than the pre-coronavirus disaster (February 3-16, 2020) net dissatisfaction level of 10.

The Real Clear Politics "Direction of Country" measure for polls taken 5/5/22 through 5/31/22 averages -47.6 (right direction 22.7, wrong track 70.3; was -48.2 on 5/29/22). This increasing dissatisfaction (net wrong track trend) began from a very low level roughly a year ago, 4/14/21's minus six (this RCC direction over the past several years has always been net negative), with the take-off point around 8/4/21's -14.8. This increasing unhappiness coincides with the sharp climb in the United States inflation rate (CPI-U). The current high dissatisfaction level parallels tops reached around the time of the Capitol insurrection (-48.2 on 1/21/21) and during the early stages of the coronavirus pandemic (-47.5 on 8/4/20). Though the net wrong track level is significant now, it falls beneath 10/17/11's -59.5 and 10/19/13's -57.5.

The Gallup satisfaction and Real Clear Politics direction of the country measures are not only reflective of economic conditions and trends. And in principle and practice, someone can be satisfied with the economic direction of the country, but not the political and other cultural trends of the nation. However, their current strongly negative readings signal a generally unhappy "general public" and probably warn of both economic and political (and social) dangers ahead for America.

As costs for essential commodities such as shelter, food, and fuel increase, that obviously creates greater difficulties for the majority of people around the globe, the middle class and poorer people, than for the affluent.

After its glorious 1/4/22 peak, the S+P 500 fell 20.9 percent to 5/20/22's 3810, thus satisfying the 20 percent decline guideline for the existence of a bear stock marketplace trend. This slump probably injured consumer confidence. However, the S+P 500 remains significantly above its first quarter 2020 high, 2/19/20's 3394 (and the March 2020 major bottom, 3/23/20's 2192). Yet in recent months, not only have stocks retreated, but also consumer price inflation has worsened significantly. Therefore, given widespread American home ownership, the notable climb in US home prices in recent years and particularly in the past several months (thus boosting consumer net worth) arguably has been a key reason why the Conference Board's Consumer Confidence Index still manages to hover well above the coronavirus period bottom of April/December 2020.

Higher inflation alongside rising interest rates (and the risk of real interest rates) and a slowing overall economy (and growing fears regarding recession) wounds not only consumer and business confidence, but also S+P 500 prices. Although a home can be an inflation hedge, these trends endanger the real (and even the nominal) price gains in homes. Consequently, further declines in consumer confidence measures probably will reflect or warn of the emergence of home price weakness. Using the Conference Board's CCI as a guide, a move in the CCI toward and especially under its 2020 lows will be ominous for home prices (and the economy). Moreover, given that American consumer dissatisfaction with the way things are going/direction of the country is so severe, a significant slowdown in nominal home price increases (and obviously a decline in them) will magnify that dissatisfaction and lower overall consumer confidence, and thereby increase the chances for a notable economic downturn (recession).

Other essays discussing key stock, interest rate, currency, and commodity marketplaces and their relationships, as well as the economic and political scenes, include: "Running for Cover: Financial Marketplace Adventures" (5/3/22); "Marketplace Trends and Entanglements" (4/4/22); "Marketplace Relationships: Life During Wartime" (3/7/22); "Paradise Lost: the Departure of Low Interest Rates" (2/9/22); "Emerging Marketplaces, Unveiling Danger" (12/2/21); "Hunting for Yield: Stocks, Interest Rates, Commodities, and Bitcoin" (11/7/21); "Rising Global Interest Rates and the Stock Marketplace Battlefield" (10/5/21).

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