KANOS
CAPITAL MANAGEMENT, LLC

Second Quarter 2021 Investor Letter

Portfolio Comments

The second quarter was all about the reopening of the US economy (and some other worldwide economies). April continued the March gains in the equity markets, both domestically and internationally, as reopenings and easy money conditions combined to push up stocks worldwide. The impressive economic growth statistics reported in April/early May gave way to less robust growth but strong inflationary numbers, causing investors to temper their enthusiasm, leading to June corrections in industrials, materials and other economically sensitive stocks. Even some Fed members felt compelled to weigh in on potentially raising interest rates faster in 2023 (or possibly in 2022) due to faster than expected recovery ("code" for higher inflationary pressures). Growth stocks had mostly poor quarters, although many rebounded in June as some investors rotated some funds back from value stocks. Foreign stock markets performed well, although East Asian (Japanese and Chinese) markets were laggards. European markets led the rest of the world's equity markets higher, as resumption of worldwide Covid concerns were trumped by reopenings in many countries and cities.

Kanos portfolios rebounded strongly as our value/commodity overweights recovered from their first quarter swoons, while many of the speculative darlings that led in the first quarter eased in price as investors turned to economically sensitive investments, which are the majority of our portfolios. In addition, falling bond yields took some pressure off safe haven investments like gold. After strong performances in April and May, portfolios gave back some gains in June as economic growth numbers leveled off from earlier higher rates. Kanos winners were our energy, technology, real estate and commodity stocks/ETFs. The Bitcoin Trust, precious metals, government bonds and financials were the losers in portfolios this quarter.

Looking forward, our portfolios continue to be positioned for the continuation of the recovering economy as well as for the inflationary pressures manifesting themselves all over the world. The recent "mini-correction" in stocks looks to have wrapped up at the end of July, so our materials, tech, industrials, healthcare and commodity-oriented investments should continue higher during the rest of the summer.

Market Analysis - Looking Forward

Executive Summary

- ❖ We believe financial markets will continue fluctuations seen recently as they wrestle with determining when/if world economies are hitting peak economic growth

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- We see continued economic growth for the US economy decelerating back below 3% but lasting longer than some forecasters think, accompanied by persistent inflation and resulting higher interest rates (which will rise but relatively slowly)
- The continued economic recovery should benefit many sectors of US equity markets, and we believe our high allocations to equities will continue and benefit
- Cyclicals and economically sensitive stocks (like our energy, industrials and materials) will gain more favor as more steady growth is anticipated
- We plan to maintain a low allocation to bonds since we see higher interest rates for the future
- We like energy even more than before, maintaining our positions and looking to add opportunistically production and oil service stocks
- For commodities, our base metals, precious metals and agricultural companies we expect to be star performers as inflation persists and economies continue growth; we will look to add to agriculturals

Introduction

The financial markets are wrestling with two big questions (that are, of course, intertwined): 1) have the "big growth" phases of the economic reopenings around the world peaked (and if so, has inflation peaked and is therefore truly 'transitory,' as the Fed Chairman Jerome Powell keeps telling us), and 2) what kind of ongoing growth in companies' earnings and peoples' wages should we expect going forward? The markets continue to wrestle back-and-forth with these questions, as evidenced by the 'growth scare' in mid- July (resulting in a stock price and interest rate dip), followed again by the strong recovery moves to the upside in stock prices (showing a belief in strong growth). This tug of war continues to persist (albeit in much milder moves) presently as second quarter company earnings announcements give evidence that could support either argument.

We believe the reopening growth has peaked, but we believe that reopenings will take longer than people think, meaning the growth rate will gradually slow down from its reopening pace (currently GDP growth is 6.5% for the US), meaning the "big growth" is behind us but solid growth will continue as Covid and its variants become less and less a factor to world economies.

Thus, we see markets continuing in their current state, with bouts of worries about growth (benefitting more defensive stocks) interspersed among bull runs of cyclical, economically sensitive stocks and continued positive economic growth. However, there are two big caveats:

1) the Fed seems to be reacting mostly to the levels of employment; thus, as employment gains have been mostly disappointing, the Fed has stayed maximally accommodative – 0% short-term interest rates and $120 billion of purchases of Treasuries and mortgage-backed securities (MBSs). Although Fed Chairman Jerome Powell has been resolute in his rhetoric (reiterated this week at the latest FOMC meeting), the Fed can react to pressure, and while the Biden Administration wants the easiest money policy possible, too much inflationary news could cause them to start to taper their Treasury/MBS purchases. Were the Fed to move to taper before December (many consider this the target date for actually tapering since the Fed has said it would signal its tapering before implementing, and it typically signals for at least three months), the markets would almost certainly react badly, at least for a couple of weeks (another "taper tantrum" like happened in 2013 when QE3 taper was announced).

2) Spending by the Biden Administration is currently thought to be the ~$600 billion bipartisan infrastructure package now passing through the US Senate and a generous budget for fiscal 2022. If any of the ~$3.5 trillion "human infrastructure" bill currently stuck in the US Senate gets through to be law, the markets will probably rally, as will inflation measures, as this potential law will introduce much more spending into an economy than expected.

We actually don't expect the Fed to taper early, the human infrastructure bill to pass or any other "emergency" spending bills to get through Congress, but these two factors would exert large influences on the markets were they to occur.

Economy

The US economy grew at 6.5% in the second quarter of 2021, which continued the approximate pace of the first quarter (these numbers are quarterly rates, expressed as an annual-equivalent rate). This growth continues to be strong, and it shows the power of reopening as more people find jobs and spending ramps up as reopenings allow more freedom to go shopping in person, as well as to travel, attend events and buy items not able to be used during lockdowns.

Some new Covid mitigation steps have been declared recently in the US (Los Angeles indoor mask mandates, most notably), but we think that economic growth will be slower than many pundits due to the reticence of many in the general public to interact with Covid still circulating (the second quarter GDP was supposed to be as high as 8.5%, but it came in much lower at 6.5%). First, most who want to be vaccinated have been; thus, the remaining people who are unvaccinated, plus those fearful of Covid, vaccinations in general or the "danger" posed by new variants, will continue to limit their activities, at least somewhat. This, along with state and local authorities trying to keep control of their populations through "worst case scenario" warnings of Covid danger, will slow down US growth in the coming quarters. The CDC, Biden Administration and state and local governments continue their maximum push toward getting as many people as possible vaccinated, but in their efforts to end the spread of Covid, but this may preclude those who are unvaccinated, limiting their ability to participate fully in the economy.

Also, we see the continued payment of extraordinary unemployment benefits as holding back the economy, as workers who continue to collect spend only the amounts they receive (not increasing their spending if they had a new job and were more optimistic, plus their purchasing power is falling as inflation rises and lowers purchasing power). Right now, corporations are probably operating near their highest capacity for work force employed, so they are almost certainly highly productive also, as current workers work more and have honed their ability to work from home or the office, also at very high productivity. From here, new workers will have to be trained and will be more expensive as corporations compete for talent and available workers. Thus, we see corporate profitability falling (as a percentage of revenues), and thus helping evidence that the growth rates of the economy has peaked but will continue to grow, albeit at a slower pace, continuing a slower, steadier growth rate.

Lastly, the Biden Administration has shown itself to be much less business-friendly than the last administration, which at some point also hurts corporate profitability. Besides the 2020 Covid

recession's effects, the current administration is pushing for a much more limited traditional, fossil fuel-based energy industry. While it may seem noble and time-sensitive, it also is poor for the economy, as the US energy industry is the most efficient in the world. Shrinking the US energy industry has already led to higher prices for energy products, and the anticipated rapid reopening of much of the rest of the world during the rest of 2021 and 2022 will put more competition into the energy industry, making limited competition lead to even higher prices, almost certainly. Higher energy prices will lead to slower US GDP, all else being equal, especially since less of energy corporate profits will accrue to now smaller North American energy companies. Green energy initiatives are not cheaper, so expanded green energy also contributes to higher current energy costs at a time when US workers are the slowest part of the economy to recover from the Covid recession.

Equities

The "$64 trillion" question(s) pushing equity markets worldwide are the two posed above in the introduction: are we at peak growth rates? If so, how fast do economies/profits grow once reopening is largely done? And how do central banks (and to a lesser extent, governments through fiscal policy) change policy (if at all) around these economic developments?

As stated above, we see continued (but slower) economic growth in the US, with growth rates falling fairly quickly but staying elevated as US economic activity continues at a "high simmer" rather than the recent "boil." We see investors continuing their current stance, with high allocations to equities, as continued growth (albeit at a recognized fall-off from unsustainable current levels) keeps a bid in equities as bonds become less attractive as deficits cause borrowing to balloon again. And the continued passive investing wave of money should continue, as Americans have gotten used to years of equity gains, even post-Covid, and will continue to direct 401(k) and other defined contribution pension plans into US equity investments without heeding more short-term gyrations (even the crash and recovery from Covid didn't change equity investment flows appreciably).

We do think the "growth scare" of earlier this summer will dissipate (although there will be further growth scares in this cycle), meaning cyclicals and economically sensitive stocks (stocks that do well when the economy grows strongly) will gain more favor as steadier growth in their sales and earnings are seen. Worldwide reopening will continue to add to demand for goods which consumers were forced to forego during pandemic lockdowns, leading to continued scarcity of many items. While reopening will also restore some production capacity, lack of materials and components will limit supplies used for production, meaning reopening will only have a limited effect on increasing production, which may boost demand worldwide in a similar manner to what has been observed in the US in the past few months.

We believe our portfolios are well positioned for the anticipated conditions. We own multinational commodity companies, materials producers, industrial companies, technology companies, pharmaceutical companies, defense contractors and real estate companies. We have avoided financials (already experienced peak earnings – are seeing selloffs due to lower expected guidance), transportation (capacity constraints and may have already seen peak earnings), packaged goods companies (hard to pass on inflation in raw materials), retail (has boomed on the reopening but we anticipate growth rates to

fall in the next few weeks/months as comparisons become harder) and other companies we think are overvalued for their future prospects.

Bonds

Bonds have been rallying since late March as the oversold nature of the bond market (10-yr Treasury rates went from 1.04% in late January to 1.74% in late March) caused buyers to take advantage of technical market conditions and make profits by taking contrarian positions. Also, the Treasury had borrowed heavily during the spring, helping drive up interest rates, and issuance was scaled back as US Government cash balances were high and stimulus had been mostly disbursed (and taxes were finally collected for 2020 by mid-June). This temporary lack of issuance led a supply-heavy supply/demand balance go to demand-heavy instead (the Fed buying $80 billion per month of mostly ST Treasuries also contributed to lower supply). We see these temporary factors ending soon. The market has balanced out technically and the government is in the process of running down its high cash balances. Thus, we think Treasuries will resume their swoon as higher supply and less demand pushes for higher interest rates/less Treasury desirability.

However, we do think that instead of "shrugging off" inflation evidence (and upcoming economic releases showing still-high inflation), we think bonds will start to react to these prints; thus, new evidence of longer-term inflationary effects and expectations will drag up interest rates. Interestingly, the opposite of this happened last time there was a big phase shift in inflation: when then-Fed Chairman Paul Volcker started fighting high inflation in the late 1970s. At that time, Volcker raised ST interest rates to 20%, trying to quell inflationary expectations (and economic activity, by the way). But the initial reaction in the Treasury bond market was that LT rates went UP, as investors saw Volcker to be panicking and signaling that higher inflation was on the way! It wasn't, and over the next few months, very high ST interest rates did start to have their effect, and LT Treasuries started down from their ~20% rates down to single digits in the next couple of years as inflation data showed the effectiveness of high ST interest rates on inflation and inflation expectations. We see this same phenomenon happening in reverse: the market will see more inflation (even if the rate of inflation does not continue to climb much higher, 5.0% inflation (core CPI) and 5.9% [CPI including food and fuel] was unthinkable just a few short months ago), the market will sell Treasuries when they continue to hear the Fed explaining away rising prices and not reacting (or reacting very slowly, even).

We also think that US corporate and muni bonds will all key off Treasuries, even more than usual, following Treasury rates upward. While this doesn't always happen, in this case, Covid forced corporations and federal, state and local authorities to borrow incrementally more to cover deficits due to lack of spending during lockdowns and slowdowns. Thus, supply is higher than it would be, and we think the same dynamics apply.

Interestingly, we see international bonds rising in price with their interest rates falling, as we see in the US, without the internal dynamics (Government cash balances) seen in the US. Much of the rest of the world is still reeling from echo outbreaks of Covid with the delta variant getting the most blame. Many more European and Asian economies are still seeing some form of lockdown/economic slowdown, the

cumulative effect of which we think has led to investors to be unsure of the robustness of international reopening recoveries. Thus, investors continue to keep one foot in the "still recessionary conditions" camp, keeping a higher allocation to bonds, and the other foot in the "reopening recovery" camp with a large allocation to equities (of course, large QE programs by most central banks continue to keep some bid in all government bonds markets, keeping prices lower than in unmanipulated markets). We are not attracted at all to very low peripheral European/Asian bond yields or negative yields (developed Europe and Japan); thus, we will continue to avoid these investments.

Thus, we will be at a very low allocation to bonds, both ST and LT, because we think we will see higher rates, and thus lower prices while seeing still high inflation, which will erode the purchasing power of bonds/fixed income for at least the next few months.

Currencies

As opposed to past years, we do not see as much opportunity in currencies. With most central banks continuing bond-buying programs in various quantities and economies not recovering as fast as the US economy (and vaccinations being at a lower rate than the US), we don't see as much opportunity in currencies. The US dollar has been stronger on reduced borrowing (discussed above), but we think that will lose some of its strength as inflation persists and US economic growth slows down. China, and to a lesser extent Japan, seem to be in growth decelerations, with economies sputtering after rapid, strong reopening bursts. Some of this is a reaction to China's central bank becoming "less easy" monetarily as its industrial, commodity-dependent economy has been hit more so by inflation than other economies. This has led its currency higher. Along with the US (whose currency is higher due to ours being the strongest economic recovery), China's yuan is higher but is not an attractive investment.

Energy

Energy recovered further during the second quarter, ending up in the $70s/bbl for crude and in the $3.60s/MMBtu for domestic natural gas. These prices reflect robust worldwide economic and industrial activity, with the proviso that OPEC+ (the plus countries are Russia and Mexico, principally) is holding up to 6 million bbls/day off the market to sustain prices for crude.

The overriding thought in the oil markets is that if OPEC+ doesn't pay close attention, they may produce too much, taking into account the official quotas agreed to during periodic OPEC+ meeting (and figuring at least some cheating above quotas that OPEC has always had to deal with). In the past few weeks, the United Arab Emirates (UAE) have been arguing for a higher quota than before, having invested in more production capacity recently). This disagreement between Saudi Arabia (keep quotas the same) and the UAE (backed by Russia, who also wants a higher quota) recently impacted oil markets, moving prices down from the recent early July high near $77/bbl for WTI to $65/bbl. On July 17th, the cartel finally reached an agreement, where the UAE's "baseline" production amount would be raised by a smaller amount than they wanted, but then all countries' quotas would move up monthly,

with the overall OPEC+ increase amounting to 400,000 bbl/mo., and each country gaining their pro rata increase each month.

This agreement stabilized oil markets and reintroduced some certainty into production in order to help oil producers, consumers and governments gauge the supply and demand balance over time. While the market was afraid of the group "opening the taps" if an agreement weren't reached in the June-July timeframe, rapidly reopening economies worldwide are using more and more energy daily, with the International Energy Agency (IEA) estimating that the world would have a 1.5 million bbls/day deficit by the end of 2021 absent an OPEC+ increase in production. And prices have responded, bouncing from lows around $65/bbl pre-agreement to approximately $72/bbl now.

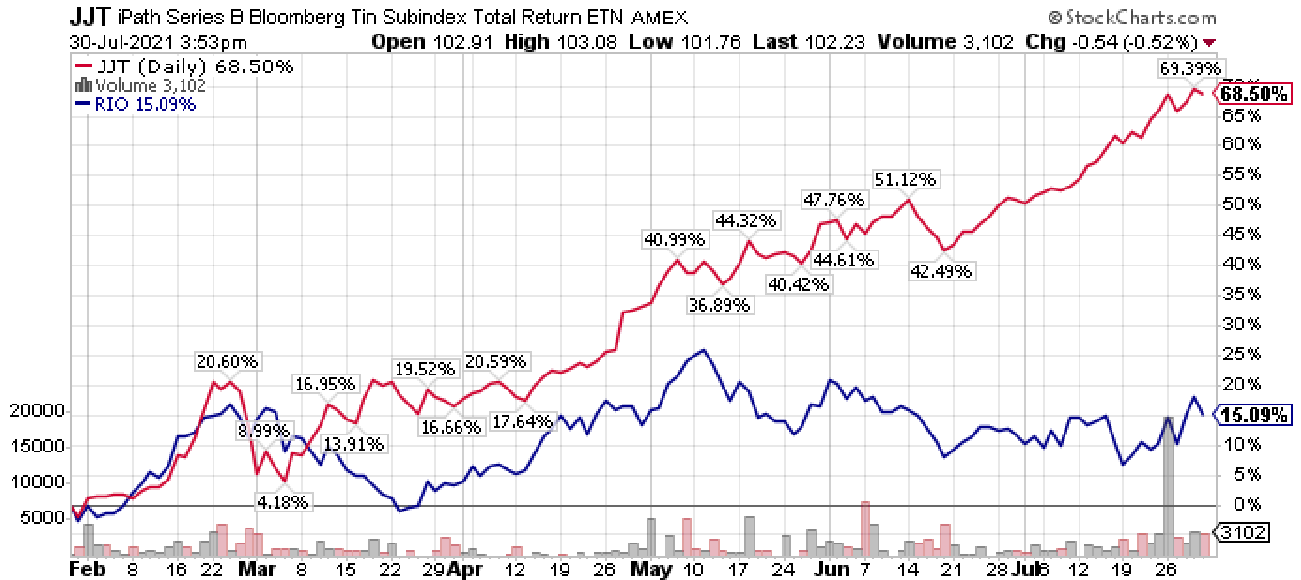
We believe that any agreement would have been bullish, as we think the pickup in energy usage worldwide will probably outstrip all production capacity in the world in the next few months, leading to upward pressure on prices. The "whisper price" is $100/bbl, which I am not sure will be reached, but the industry will benefit mightily with crude oil in the $80s-90s/bbl and natural gas at $4.00/MMBtu (current price) or higher.

We continue to hold our supermajors and infrastructure/midstream/MLP companies, and we will be looking opportunistically to add exploration & production companies and possibly oilfield services stocks also to portfolios.

Commodities/Precious Metals

Commodity stocks had poor June performance as lack of US borrowing helped push the US dollar higher against almost all currencies, which caused commodity stock investors to sell some holdings. The Fed with their drumbeat of "transitory" inflation that will soon fade was kept alive with this dollar-strength induced weakness, causing further selling. Although prices of many commodities themselves dropped (pushing down producing company stock prices), the availability did not improve markedly, with shortages and long lead times for many materials persisting. High profile performances like lumber (up almost 400% at one point) have dropped back, giving some comfort that the inflation is behind us; however, it's not. Much more prevalent are the myriad of stories and reports of shortages and long lead times for deliveries. Thus, we see the recent swoon as just a correction in a bull market for commodities.

We have tried to get exposure through base metals mining companies, especially those that produce copper, iron ore, zinc, nickel and many others. We think these companies, the survivors of the consolidation of the 2000s and the bear market of the 2010s, are well positioned to deliver reliable supplies with predictable costs that will produce growing cash flows as prices of their produced commodities rise. The following graph, showing the last six months of tin prices (as represented by the JJT tin total return ETN) plotted against a large, diversified mining company like Rio Tinto (ticker RIO), shows the outperformance of at least one metal versus a mining company that produces it. As the mining companies make more money producing these metals, the performance will converge, lifting mining company share prices further.



The same is true of the precious metals companies we own: they have defined (and growing) resource bases that can be produced at predictable costs and are seeing their cash flows balloon quarter by quarter as they control costs, but prices of their production continue to rise. While gold and silver hit highs last summer, the average selling price for the first half of 2021 is higher than any other year in history, and capital spending/cost discipline is showing in record cash flow per ounce for our owned companies.

Gold and silver have been moving inversely in lock step with real yields on Treasury bonds lately, and as bond prices have dropped and inflation has risen, real yields have fallen further and further negative, while gold has barely followed. We think gold will catch up, especially as gold and silver have rallied after the latest FOMC meeting in which Chairman Powell clearly signaled that the Fed was targeting full employment and letting inflation run hotter. The following graph shows how much room gold has to the upside to follow real yields (which are plotted inversely for better illustration purposes); the graph is from Bloomberg via the 8/2/21 Zero Hedge article “Treasury Yields Are Puking Again.”

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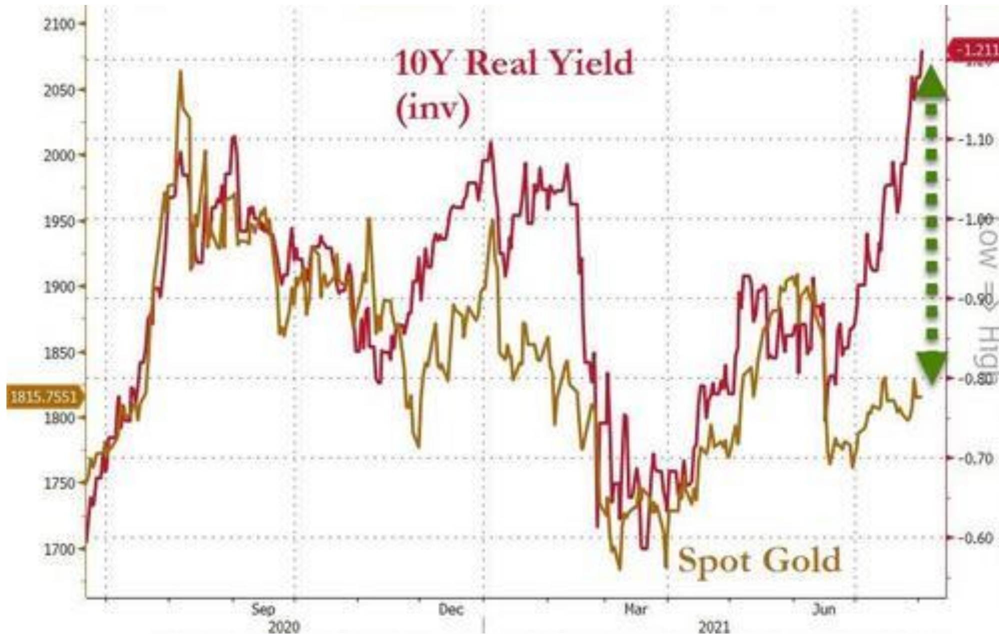
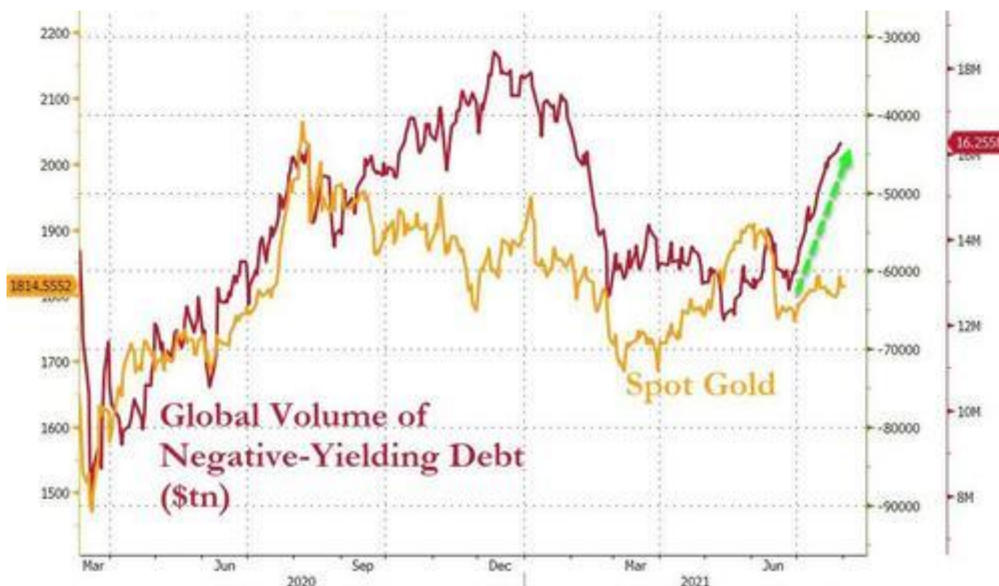


Gold should get this push due to falling yields worldwide, as the delta variant of Covid delays reopenings; Zero Hedge cites a Bloomberg generated graph in its 8/2/21 article "Stocks, Bond Yields & Crude Tumble As ISM Peaks" that shows how gold prices in 2020 were pulled up by the large amount of negativel-yielding debt in the world. That number is again rising (now back above $16 trillion worldwide), so avoidance of paying for yield should again drive stronger demand for (zero yielding) gold.



One other group of commodities that are very strong are the agriculturals. Weather problems in key parts of the growing world, transportation problems getting products through the supply chain, and the now chronic shortage of labor in the US to get food to consumers has led to higher futures market prices and, of course, higher grocery store prices.

Thus, we plan to continue our exposure to base metals and precious metals companies, and we will look to initiate/add to our agricultural exposures, either through ETFs that track the price of the underlying commodity (CORN, SOYB, WEAT, etc.) as well as commodity production and trading companies (Archer Daniels, Bunge, Tyson Foods, etc.).

Equity investors and traders haven't seen any real inflation since 2008 and really since the 1970s/early 1980s or the blip higher in the early 1990s. These initial moves look like "hot money" came into the sector last year, and as the 2021 correction developed, the hot money has left, leaving a buying void. However, buyers have emerged in recent weeks as inflation continues to be ever present, and fundamentals show that there are many situations that present attractive investment opportunities.

Summary

In a nutshell, we see things economic things continuing in their current trajectories, while we see Covid gradually withdrawing from people's daily activities, paving the way for a slower than anticipated but long-lived reopening push for the economy. This should benefit many sectors of the US equity markets, and we think the commodity/materials sectors will again prove to be star performers as inflation persists and interest rates rise, making bonds less and less attractive investments.

Kanos Quarterly Commentary

Is THAT Why It Costs Me So Much To Fill Up My Tank?

One big aspect of inflation during the 1970s was energy price inflation. Two wars in the Middle East as well as shortages of domestic natural gas led to an energy crisis, much higher prices and a major shake-up in American businesses and the economy.

Now, post-Covid, we are seeing energy prices at three-year highs, led by gasoline prices which are exceeding $3.00 per gallon throughout most of the nation (over $4.00 per gallon in California due to higher costs and higher taxes). Higher energy prices affect a large number of Americans, and they disproportionally hit lower income Americans who devote more of their income to energy costs. Most economists are predicting that energy prices will come down as higher prices and the use of electric cars limit demand. However, we are less sure of this result; we see three main reason we think will keep energy prices higher than most expect:

1) Environmental/ESG movement has limited the ability for the fossil fuel industry to operate and attract capital;

2) Mounting governmental obstacles to searching for, producing, processing/refining and transporting fossil fuels, and
3) Wall Street's reluctance to provide more financing for fossil fuel investments, instilling capital discipline but restricting supply

The three elements we see keeping energy prices high through limitation on supply are: the ESG movement in the investment world, mounting governmental obstacles to energy production and investors' reluctance to provide further capital to the industry.

Environmentalism / ESG

Politically focused environmental/progressive movements have focused on opposing "Big Oil" since Ida Tarbell crossed ways with Standard Oil in the late 1800s. Greenpeace and other organizations have continued to try to put pressure on the energy industry to advance their progressive agendas and either discourage or disrupt energy production through social, procedural, legal and even occasionally violent ways. The latest "theater of operations" is the ESG ("Environmental Social Governance") movement in investment management, in which various progressive activists have lent their modus operandi to fighting the energy business in the investment world, imposing their politically left-leaning values through intimidation, and for the most part, bypassing shareholders.

ESG is the latest version of socially responsible investing, and it has gained a firm foothold in the governance of corporations worldwide, especially in the US. The rise of passive investing and the embrace of ESG principles by socially progressive wealthy individuals have been combined to become a de facto standard measure of corporate governance, even though ESG principles and framework lack any rigorous standards or accreditation. But ESG principles have been imposed on corporations by a vocal enough contingent of stakeholders, forcing them to defend their "sustainability" using ESG principles, which then allow them to attract capital directed based, in many cases, on their size and/or their ESG "scores."

One major consequence of the ESG movement is its targeting of fossil fuels. ESG proponents claim companies in fossil fuel industries score very poorly on their Environmental scores, and environmentally conscious investors must underweight or even divest themselves of these companies. A number of investors have also introduced that known "polluters [fossil fuel producers]" should be divested on moral grounds. As ESG has gained more and more traction over the past few years, ESG proponents have been successful in getting some institutional investors to sell much of their non-clean energy holdings. This is probably best illustrated by comparing weightings of energy in the S&P 500 from different years: in June 2014, energy represented 10.9% of the market capitalization of the S&P 500 index. By July 2021, energy represents just 2.5% of the S&P 500, a drop of 81.7% in weighting! It helps that the S&P 500 has been in a bull phase, rising approximately 120% during this seven-year period, but the S&P Energy Select Sector Fund (energy majors and producers) was down 28.8% during the period, caused partially by investing in technology/divesting energy, while crude oil prices were down 25-30% too, due mostly to overproduction.

Thus, divestment of energy shares, much of which was championed by environmentalists and pushed into the investment world by the ESG movement, has helped contribute to a much smaller energy industry in the United States. In addition, the rise of passive investment, which has grown much more pervasive over the last decade, allocates new dollars in most cases by market capitalization. Thus, the larger the company (and sector), the more investment of every new dollar of passive investment it receives. With the energy sector 82% smaller than it was in 2014, the energy sector (and it is currently dominated by Exxon and Chevron, which make up the majority of the S&P Select Energy Sector fund), receives less than a quarter of new investments compared to what it received just seven years ago.

Governmental Obstacles

President Joe Biden was elected by a coalition of Democratic factions which came together in order to help President Biden defeat Donald Trump in 2020. As a consequence of their help winning the election, some of these progressive factions now demand that Biden implement some of the issues that they feel are most important. Environmentalists are one of the strongest factions and have gotten Biden to push a large majority of their agenda, including trying to rid of the world of fossil fuels under the larger topic of climate change.

Since January, the US Government has rekindled the anti-fossil fuel rhetoric of the Obama Administration and added a number of recent executive orders, including ceasing leasing federal land for oil and gas exploration and production, revoking permits for the Keystone pipeline, threatening to block the operations of current pipelines and pipeline projects underway (Dakota Access and Enbridge's Line 3, respectively) and encouraging governmental lenders worldwide to limit or cease lending/guaranteeing oil and gas projects around the world.

The International Energy Agency (IEA), the intergovernmental organization that is the developed world's energy statistics and forecasting agency, has gotten into the act of governmental obstacles. The IEA issued a new report in May 2021 in response to the Paris Climate Accords titled "Net Zero 2050". In the report, the IEA posits that to reach the net zero carbon goal by 2050, **all new oil and gas exploration projects must stop immediately (and no new ones initiated).** They expect that more clean energy, carbon sequestration and energy efficiency will allow continued growth in the world economy, with solar representing the largest energy source supplying 20% of global energy demand. This is a fantasy, however, as large energy producers that rely on oil exports to power their economies (Opec countries, Russia, etc.) could never stop development cold, but this type of report does encourage Western governments to plan to discourage further fossil fuel development.

The European Bank for Reconstruction and Development (EBRD), an intergovernmental agency set up in 1991 to help Central and Eastern Europe emerge from the Cold War and finance projects to improve those fledgling economies emerging from Communist rule, is also in on the act. On July 1st, 2021, the EBRD announced that aligning itself with the Paris Accords on climate change, it would stop investing in all upstream oil and gas projects by the end of 2022, and it would only invest in midstream (pipeline) and downstream (refining) projects that met Paris Accord guidelines. So here is another example of chilling oil and gas investments that will be needed for economic growth in coming years.

So, add governmental constraints to the rising costs of producing oil and gas – both sovereign governments (the US and Canada, notably, but also many European countries) and intergovernmental agencies. With climate change agreements taking precedence over energy development, one has to wonder how quickly economies will be able to gear up to run increasingly on expanded clean energy, newly developed clean energy projects and imported energy to supplement declines in domestic supplies across the North America and Europe.

Wall Street Capital Discipline

Finally, there is the question of investor's seemingly newly recalibrated risk/reward parameters for oil and gas investments. We remember well seeing the investment world throw capital, both debt and equity capital, at shale drillers during the 2010-2014 period, when the world economy recovered from the Financial Crisis of 2008-2009 and lack of supply led to prices that exceeded $100/bbl all the way into 2014. While the full-cycle profitability of shale drilling was unproven (large amounts of capital were needed to drill and frac shale wells, leading to large production rates in the first 1-2 years but much reduced rates afterwards), the lure of the initial production rates compared to the amount of capital spent to drill lured energy capital to shale, starving conventional drilling.

We were even more surprised when shale drillers were able to convince Wall Street to recapitalize a number of these companies with both equity and debt capital in 2015-2017 when shale operators insisted that improved techniques and lower oil service costs would make wells profitable at prices below $50/bbl. "Drill baby drill" due to cheap capital and the worldwide economic expansion of 2017-2018 led to more capital to shale drillers, who proceeded to use all the capital to expand production, culminating in US domestic production exceeding 13 million barrels per day, a far cry from the 5 million produced domestically in 2005 before shale drilling was fully developed.

Falling economic activity in 2019-2020, culminating with Covid lockdowns that persist to this day, drove energy prices to lows not seen in decades, including a one-day episode where futures traded at negative $37/bbl for May 2020 delivery (as holders had to pay users/companies with storage $37 per barrel to take crude oil off their hands). Crude oil traded for under $40/bbl for much of the spring of 2020, and many shale companies either went out of business, went through bankruptcy or were bought by larger companies at historically attractive terms. A large amount of the debt and equity used to finance shale drilling post-2014 was either lost or put at great risk of repayment/recovery.

Now, Wall Street capital allocators, having been burned twice, are penalizing shale companies for expanding their drilling. Even as prices for crude oil have exceeded $70/bbl, investors have punished companies that add drilling capabilities, rewarding those that maintain their previously stated capital budgets and drilling spending in a disciplined manner. Even adding one extra rig was recently highlighted as dropping one shale producer's stock, showing how discipline is meted out for even the smallest transgression.

The result? With US production back to around 11 million barrels per day and OPEC+ countries adding back production at a measured pace, energy prices are back to multi-year highs: gasoline above $3.00/gallon with inventories near 5-year lows, crude within 10% of three-year highs with inventories

below normal and natural gas at two-year highs in the middle of summer. The world is reopening from Covid shutdowns, but Opec+ will have to provide all the incremental petroleum supplies as demand returns to near pre-Covid levels and North American supplies are limited.

The combination of the effectiveness of the environmental movement combining with social investing movement to use ESG principles to fight further petroleum investments has driven down the importance of traditional fossil fuel energy companies. The victory of the Democrats in 2020 pushed progressive and environmental policies to the new administration's forefront, using executive orders and Paris Accord guidelines to promote fighting climate change through restricting as many facets of the energy business as possible. With Wall Street limiting investments due to prior poor results and intergovernmental agencies limiting financing of oil and gas and promoting clean energy, we see higher oil and gas prices lasting for much longer than most economists and businesspeople worldwide think.

We believe limiting oil and gas production, processing, transportation and refining without current and viable replacement clean energy infrastructure in place is a policy mistake of epic proportions. The energy density of petroleum is so much higher than almost any other source of energy for our economies means that clean energy infrastructure will have to be even bigger than our current energy infrastructure or far more efficient than we are currently, and it will have to be built out very quickly – a herculean and virtually impossible task. We hope US, Canadian and European policy makers and politicians will realize as soon as possible that keeping up North American and European petroleum development must be done to keep energy prices down so as to power our economies higher post-Covid. If not, energy prices are on a possible trajectory to eclipse the highs of prices in 2008 - $140/bbl crude oil, $13.50/MMBtu natural gas and $4.00+/gal of gasoline!

The Managers of Kanos Capital Management
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