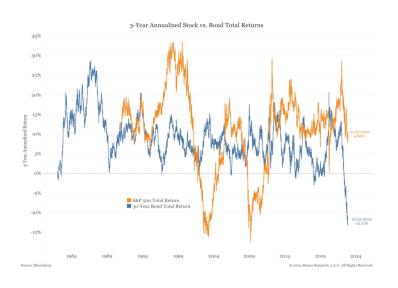


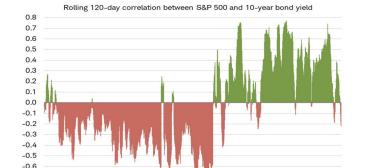
Toroso Market Commentary November 2022

Authors: David Dziekanski, Portfolio Manager Michael Venuto, CIO

RIP the Fed Put

Inflation has unwound the 60/40 portfolio to levels not seen since 2008. Pretty much every portfolio is down 15-20%. The spread in performance between conservative and aggressive portfolios leaves many scratching their heads. How does this make sense? Putting into perspective the huge drawdown fixed income has experienced shows the answer. This occurred at the same time as the 20-year stretch of negative correlation between stocks and bonds reverses in the face of volatility and inflation. The reset in bond yields may have given the bond market another 5-10 years before the true development of the global bond market meltdown.





Era of positive yields/stocks correlation over?

Source: Charles Schwab, Bloomberg, as of 10/31/2022. Correlation is a statistical measure of how two investments have historically moved in relation to each other, and ranges from –1 to +1. A correlation of 1 indicates a perfect positive correlation, while a correlation of -1 indicates a perfect negative correlation. A correlation of zero means the assets are not

1985 1987 1989 1991 1995 1999 2001 2007 2013 2013 2013 2013 2013 2013

The wave of global monetary and fiscal policy unleashed in 2020 has highlighted the wealth gap dislocations caused by this 50-year, debt-fueled bubble. The populist movement focused on the wealth gap, coupled with inflation, has officially killed the Federal Reserve Put (1992-2022), at least for now.

-0.7

Geopolitical risks remain heightened with Russia & Ukraine, and the risk of conflict involving Taiwan is slowly growing, as Xi Jinping secures a historic third term as leader of China. Geopolitical risks put the dollar's long-term dominance into concern, while short-term liquidity squeezes around the world have caused the dollar to soar to 20-year record levels.

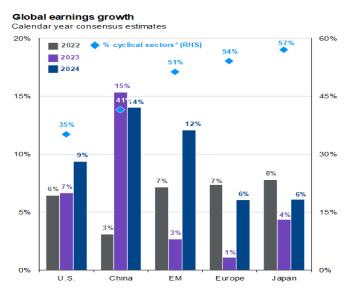


Businesses first got hit on the top line, evidenced by two consecutive quarters of negative GDP. Now, the bottom line gets tested, as we've entered the second of three quarters of earnings that are expected to print negative numbers once the energy sector is excluded.

S&P 500 y/y earnings by sector										
Sector	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	FY22	FY23
Consumer Discretionary	-27.9%	-12.1%	16.7%	-3.9%	57.0%	45.9%	22.4%	20.2%	-6.4%	33.4%
Consumer Staples	7.9%	2.2%	-0.3%	-1.9%	1.0%	6.1%	7.7%	8.6%	1.5%	6.2%
Energy	269.5%	295.5%	135.7%	62.3%	30.2%	-28.8%	-22.9%	-10.7%	148.8%	-11.0%
Financials	-17.1%	-19.3%	-16.1%	-3.7%	7.8%	13.3%	21.5%	10.0%	-14.2%	13.1%
Health Care	18.3%	8.7%	-2.2%	-1.1%	-7.9%	-4.9%	2.1%	2.7%	5.5%	-1.1%
Industrials	40.5%	31.6%	19.3%	43.3%	27.9%	7.7%	16.5%	9.1%	33.7%	13.8%
Materials	46.3%	17.5%	-7.8%	-11.2%	-18.0%	-14.9%	1.8%	6.8%	10.7%	-8.9%
Real Estate	25.5%	13.1%	14.1%	8.1%	-2.5%	-0.8%	-1.0%	9.1%	14.6%	1.6%
Technology	14.6%	1.5%	-1.2%	-3.3%	-3.5%	4.3%	8.9%	12.6%	2.5%	6.1%
Communication Services	-2.8%	-20.3%	-20.9%	-17.0%	-5.0%	7.8%	15.2%	18.2%	-15.1%	9.0%
Utilities	24.6%	-3.7%	-7.2%	5.1%	-9.2%	0.4%	6.1%	36.3%	3.0%	7.4%
S&P 500	11.4%	8.4%	4.1%	2.6%	4.3%	1.9%	7.1%	9.1%	6.3%	6.2%
S&P 500 ex-Energy	5.2%	-2.1%	-3.5%	-1.5%	2.1%	6.5%	11.3%	11.4%	-0.4%	8.2%

Source: Charles Schwab, I/B/E/S data from Refinitiv, as of 10/28/2022

The most important market input in the near term is from the Fed. The second greatest question is earnings. Our last commentary was titled "guidance systems down," referencing the huge drop in actionable guidance that companies were providing. It's hard to blame them with so much uncertainty, but also makes the future that much more unclear. This trend has continued into this quarter. Earnings expectations for 2023 have already begun to come down. Q2 2023 was initially expected to come in at an annualized \$250 for the S&P 500, but has been revised all the way down to \$236. We are still pricing in smooth sailing



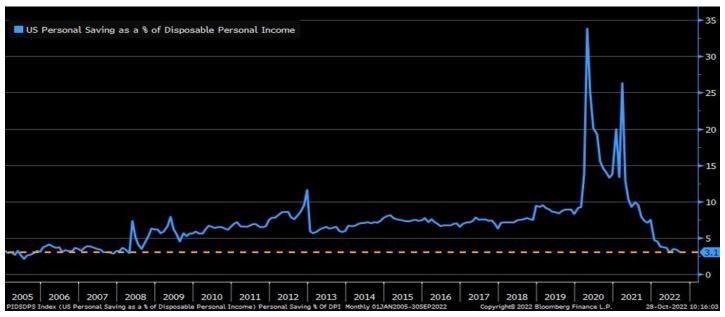
JP Morgan, Guide to the markets.

from there. One has to ask, will inflation really fall solely onto the consumer, or are sell-side analysts asleep at the wheel? The return of austerity shopping behaviors common in the 1970s and 1980s is a possible outcome that could greatly affect top-line and bottom-line outcomes in the near future.



It's All About Perspective

If a Japanese investor had woken up on January 1st and decided to put all of his money into the S&P 500, he would be up 7% year to date. That's how powerful the dollar has been, and how powerful of an investment vehicle US equities continue to be to the rest of the world. This holds equally true for US fixed income, real estate, and even crypto. Value is in the eye of the beholder, and internationally the QQQ's are still king. The US retail investor is on third leg of their buy-the-dip strategy this year, one that worked perfectly leading up to 2022 for a 14-year period. What they have left in the tank for additional reups remains unclear as savings rates and disposable income have plummeted, exacerbating the downside of the chart below. What's most surprising is the conviction in so many beaten-down, tech-focused ETFs that have yet to feel much by way of redemptions.

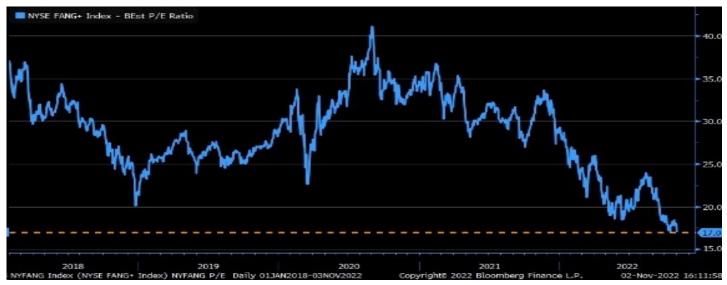


Market participants may not be buying-the-dip with as much force, but they are not selling yet. Net selling from the international investment community is something to expect. US equities have outperformed global markets for the better part of 15 years, and this recent surge of the US dollar is muting the downside volatility we US dollar based investors have experienced.

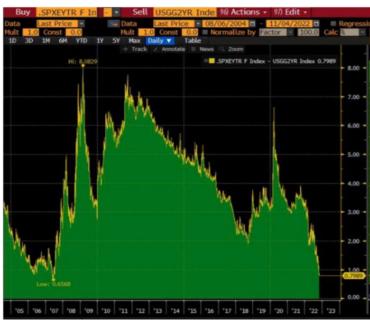


Are Equities Cheap?

Equities certainly are cheaper. Heavily beaten-down tech stocks were dependent on nearly free debt financing to fuel continued top line growth at impressive levels with hopes of growing to profitability down the road, with no real focus on when. When short-term rates shoot up to 4%, these businesses can no longer borrow at record low levels or raise capital from others' leveraged balance sheets. Allocators have begun to question how many years it will be before positive EBITDA passes through to shareholders at this hefty cost of carry. Most of the tech world is cutting staff and moonshots, instead focusing on a sped-up road to profitability. As is the case in most market dislocations, those who are able to continue their market share growth will grow leaps and bounds against their competitors. However, this is very much the exception - not the norm.

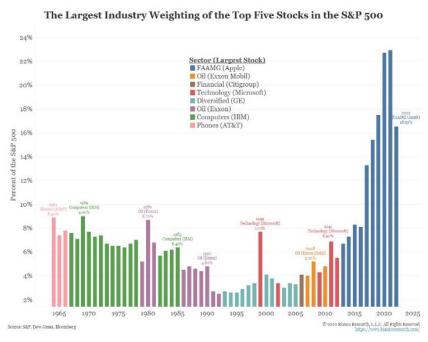


The chart above shows the Bloomberg Best P/E ratio for the NYSE FANG+ Index, showing that FANG stocks have not been this cheap in 6 years. The chart on the right compares the trailing 12-month earnings yield of the S&P 500 against the yield on 2-year treasury bonds. Stock fundamentals are relatively cheap compared to the last decade, but near a 20-year high when compared to treasury yields. It's quite a confusing time to be an investor!





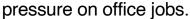
It's hard to tell just yet whether we have reversed course into a new regime, or if innovation will revert our inflation back to a deflationary stance, leaving many of the same winners of the past decade to continue. Historically, there is a regime change post-recession. How many FANG members will be top 10 stocks in the world in 5 years?

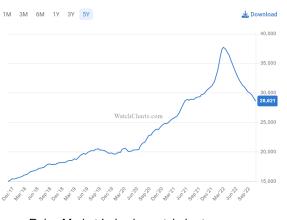


Where we are on Inflation

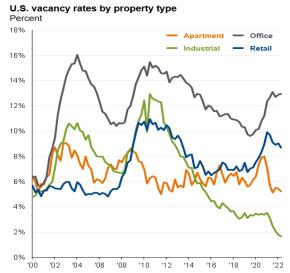
Inflation is still running hot in many sectors of the economy. Shelter has led the way. Even if the US were to enter into a Japanese-type deflationary environment, its important to remember that even in that case, goods and services continued to inflate in cost, and hard assets such as real estate suffered the most long-term deflation. This all makes sense. As an economy ages, you sell more of your assets to generate free cash flow for needs and services.

Office vacancies remain stubbornly high. The used car market is teetering, as many loans were written mid-pandemic at levels that leave car owners underwater on their car loans, eerily similar to what transpired in housing in 2009. Below is a chart from the Rolex Market Index, which is comprised of the top 30 Rolex models by sale. Hard assets, outside of shelter, have begun to turn alongside financial assets. We still have about 125 more basis points of expected Federal Reserve rate hikes being priced in. We continue to see wage strength in the service industry, but waves of layoffs in the tech sector have begun to put pressure on office jobs.





Rolex Market Index by watchcharts.com

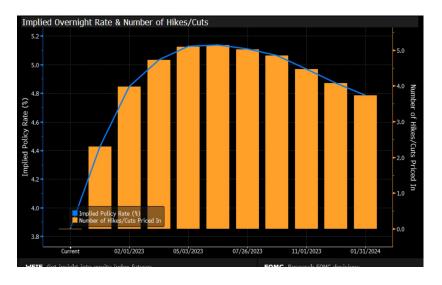


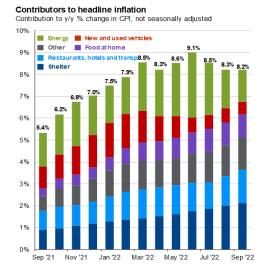
Source: NAREIT, NCREIF, Statista, J.P. Morgan Asset Management.

The cap rate, which is computed as the net operating income over sales price, is the rate of return on a real estate investment property. Vacancy rate data is as of 6/30/2022. Data is based on availability as of 9/30/2022. This slide comes from our Guide to Alternatives.

Guide to the Markets – U.S. Data are as of October 26, 2022.







Market Wrap-Up

The Fed continues to fight for their reputation, credibility, and in some cases, personal fame. The hidden pockets of leverage that could unwind at a moment's notice are warning signs, as experienced with the Three Arrows Capital Blowup, or the Pension Fund Crisis in the UK. Trying to predict where is next to impossible. It's important to note that in the debt-fueled bubble we exist in, the duration of a recession and high interest rates matter more than the actual depth of the recession and the peak interest rate level.

Market Wrap-Up

iShares Core S&P Total US Stock Market ETF (ITOT) ended October -18.8% for the year. The fall of the megacap tech giants, measured by QQQ or MGK fared much worse, down almost 30% for the year. Small caps, measured by the iShares Russell 2000 ETF (IWM) returned -16.9% for the year, and value trounced growth by a massive 20% on the year. Earnings estimates for Q3 were sharply revised down leading into results. We expect much more of that to come, making forward earnings a terrible gauge for fundamentals. Pairing areas of potential growth with value-oriented assets and energy exposure is a good way to regain some diversification benefits lost from fixed income. The energy sector has reached record levels of profitability. Even if Oil were to slip to 70-80 dollars a barrel, these companies should remain very, very profitable.

- Ballast Small/Mid Cap ETF (MGMT)
- Distillate U.S. Fundamental Stability and Value ETF (DSTL)
- Cambria Shareholder Yield (SYLD)
- Alpha Architect US Quantitative Value ETF (QVAL)
- iShares US Oil & Gas Exploration & Production ETD (IEO)
- Amplify Inflation Fighters (IWIN)
- Invesco Dynamic Energy Exploration & Production ETF (PXE)
- Virtus Reaves Utilities ETF (UTES)

- Sofi Be Your Own Boss ETF (BYOB)
- Amplify Transformational Data Sharing ETF (BLOK)
- Franklin Disruptive Commerce ETF (BUYZ)
- BlackRock Future Innovators ETF (BFTR)
- Innovator Loup Frontier Tech ETF (LOUP)
- ARK Genomic Revolution ETF (ARKG)

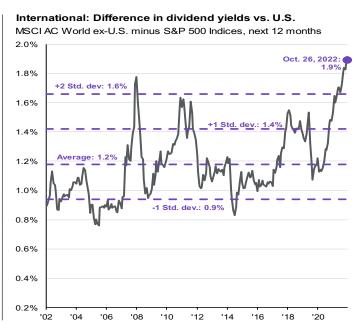


ETF (DGS)

International Developed and Emerging Market Equities

The iShares MSCI EAFE ETF (EFA) returned -23.2% through October, while the iShares MSCI Emerging Markets ETF (EEM) returned -29.6%. Seeking deep value and high growth in the emerging market space makes sense, and very selective stock pickers for the broader developed - ex us world. Emerging Market Tech was down -47%, but is showing signs of life as of late. MSCI World ex US is trading at over a 30% discount to the US based on price-to-earnings. These equities are yielding almost 2% more than the S&P 500. The 15-year reign of outperformance by US equities remains strong, but a turn in the dollar could further increase this yield differentiation to a point where international equities become the ultimate value play.





Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management.

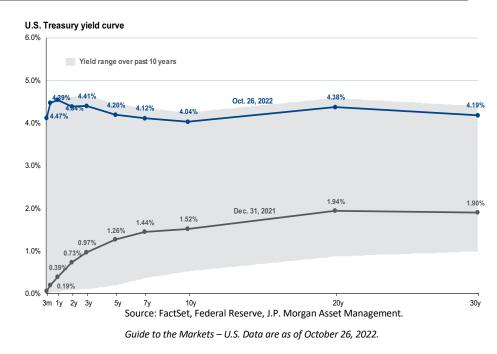
Guide to the Markets – U.S. Data are as of October 26, 2022.

WisdomTree EM ex-SOE ETF (XSOE) FlexShares MS Dev Mkts ex US Factor Tilt (TLTD) Distillate Int Fundamental Stability & Value ETF (DSTX) WisdomTree Emerging Market Small Cap Dividend Marrow Davis Select International ETF (DINT) Emerging Markets Internet & Ecommerce ETF (EMQQ) KraneShares Emerging Markets Consumer Technology ETF (KEMQ) Matthews Asia Innovators Active ETF (MINV)

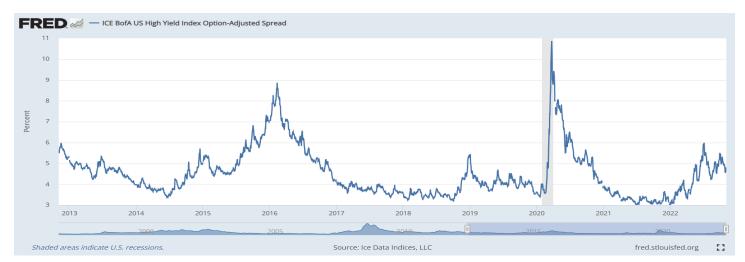


Fixed Income

iShares Barclays Aggregate Bond ETF (AGG) finished October down -15.6% on the year. Long term treasuries, measured by PIMCO 25+ Year Zero Coupon US Treasury ETF (ZROZ) is down -44.7% on the year. High yield has held up relatively well, as much of its composition is focused in the energy sector. It is down about -12.5%. One of the biggest risks in this market continues to be the massive amount of issuance



rated just above high yield in the BBB category. Vehicles meant to protect against rising interest rates offering negative duration saved some investors' fixed income allocations. FolioBeyond Rising Rates ETF (RISR), up 34% through October, and Simplify Interest Rate Hedge ETF (PFIX) returned an eye opening 110%. This was one of the worst starts to the year for fixed income in history. While spreads for high yield bonds remain elevated, they are actually trending downward for the time being. It's absolutely astonishing to see the difference in the yield curve in just 10 months from the end of last year until now.



- PIMCO 25+ Year Zero Coupon US Treasury (ZROZ)
- SPDR DoubleLine Total Return Tactical ETF (TOTL)
- First Trust TCW Opportunistic ETF (FIXD)
- FolioBeyond Rising Rates ETF (RISR)
- Ionic Inflation Protection ETF (CPII)

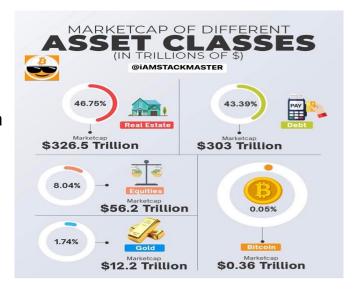
- Saba Closed-End Funds ETF (CEFS)
- VanEck Vectors CEF Municipal Income ETF (XMPT)



Alternatives

Gold & cryptocurrency assets have disappointed as alternatives in a year where both equities and fixed income were down substantially. The amount of leverage that has been shaken out of the cryptocurrency market was substantial. Bitcoin and ether have held up well as of late, and in currencies other than the US dollar, have actually begun to perform. True market neutral strategies shined, led by the AGFIQ US Market Neutral Anti-Beta ETF (BTAL), up 17.2% through October. After years of underperformance, CTAs have finally shined, catching trends in commodity and agricultural futures, and very strong performance from the US dollar. The chart below to the right puts into perspective how small gold and crypto really are in the greater scheme of things, and why they might still be great hedges against a \$303 trillion dollar debt market.

Many are waiting for the real estate market to follow equities' lead down. While this is a possibility, it's far from a certainty. The below chart shows just how unaffordable housing is in the US. We are back to levels last seen briefly in 2006 and in the early 1990s. As our ETF professor Dan Weiskopf (@ETFProfessor) likes to point out, structure matters, and the majority of US mortgages are on 30-year schedules. Again, the duration of recessions matters more than the depth, to an extent. To put this into comparison, Canada's residential real estate

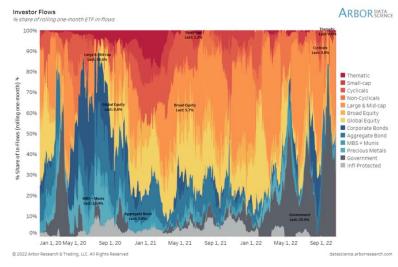


market does not have 30-year mortgages. Most are actually tied to 5-year mortgages. If inflation persists, the majority of residential real estate will have to roll over and feel the full effects of how unaffordable mortgage payments are on newly minted mortgages.

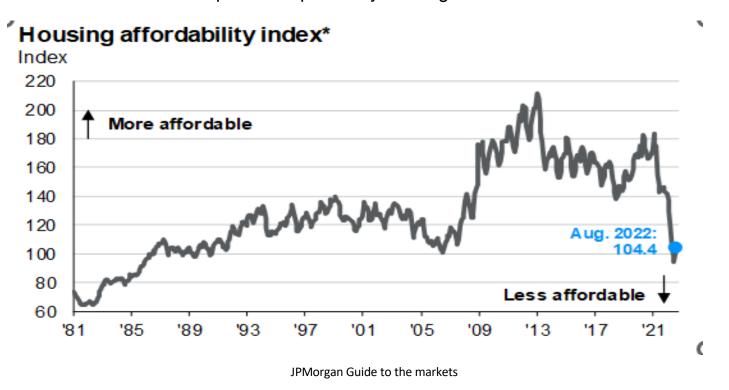


Investors are Bored with the Recession

Buy-the-dippers are using a playbook that has never seen an extended drawdown, especially one caused by inflationary pressures. Their capitulation, which can be viewed through flows in thematic high-growth ETFs, would be the next shoe to drop if equities were to take a larger dip to the downside. So far, inflows have stalled, but conviction remains surprisingly strong, and mass outflows have not begun. An uptick to government bond



allocations has picked up as of late. If inflation is beginning to peak, negative correlation between treasuries and equities is a possibility once again in the future.





A Hypothetical High-Active-Share Reconstruction of a Traditional 60/40

- 5% PIMCO 25+ Year Zero Coupon US Treasury Index ETF (ZROZ)
- 2% BondBloxx USD High Yield Bond Energy Sector ETF (XHYE)
- 2% WisdomTree Floating Rate Treasury Fund (USFR)
- 7.5% Saba Closed-End Funds ETF (CEFS)
- 2.5% AGFiQ US Market Neutral Anti-Beta Fund (BTAL)
- 2.5% iShares US Oil & Gas Exploration & Production ETF (IEO)
- 1% Ionic Inflation Protection ETF (CPII)
- 1% FolioBeyond Rising Rates ETF (RISR)
- 2.5% WisdomTree Enhanced Commodity Strategy Fund (GCC)
- 1% Teucrium Agricultural Strategy No K-1 ETF (TILL)
- 4% SPDR Gold MiniShares Trust (GLDM)
- 4% Amplify Inflation Fighters ETF (IWIN)
- 2% Sprott Uranium Miners ETF (URNM)
- 5% Amplify Transformational Data Sharing ETF (BLOK)
- 5% SoFi Be Your Own Boss ETF (BYOB)
- 5% Franklin Disruptive Commerce ETF (BUYZ)
- 5% BlackRock Future Innovators ETF (BFTR)
- 4% Ark Genomic Revolution ETF (ARKG)
- 4% Emerging Markets Internet & Ecommerce ETF (EMQQ)
- 5% Ballast Small/Mid Cap ETF (MGMT)
- 5% VanEck Retail ETF (RTH)
- 5% ETF 6 Meridian Small Cap Equity ETF (SIXS)
- 5% Alpha Architect US Quantitative Value ETF
- 5% Cambria Shareholder Yield ETF (SYLD)
 - 5% Distillate International Fundamental Stability Value ETF (DSTX)
- 5% Distillate US Fundamental Stability & Value ETF (DSTL)

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