



Q1 2022 Review and Current Capital Markets

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Capital Markets

Equity markets declined sharply by 5.4% in USD terms during Q1 2022 (ACWI Index) and have further declined by 2.9% through April 15, 2022 (bringing the YTD performance to -8.1%).

The declines were driven by multiple compression stemming from a) increasing inflationary pressures and resultant increased hawkishness from global central banks and b) rising geopolitical concerns stemming from the Russia-Ukraine conflict.

Growth and quality stocks materially underperformed value stocks as investors bid up commodities (energy and mining equities), interest-rate sensitive financial stocks and utilities.

Aggregate earnings growth in 2022 is expected to moderate to 8% for S&P 500 and 7% for Stoxx 600, down from 2021's 50%+ levels. These forecasts may prove more challenging to exceed as many companies are noting margin pressures from surging input and labor costs (with input costs likely exacerbated post the Ukraine conflict).

Government and investment-grade corporate bond prices have declined by the largest amounts YTD since the late 1970s

Government bond yields surged globally (swiftest in the US) as investors have priced in aggressive central bank hiking cycles

US 10-Year Treasury yields increased from 1.5% as of YE 2021 to 2.9% as of 4/18/22 while 10-Year German Bunds increased 110bps from -0.2% to 0.9% during the same period.

The Russia / Ukraine conflict has exacerbated already high inflationary pressures with year-over-year consumer price indexes climbing 7%-10% across geographies in March.

Several commodities are up 25%-50% since the start of the conflict.

The conflict is lengthening the time to normalize supply chains for certain materials and products.

We are incorporating these views into portfolio positioning by:

- Increased allocations to alternative assets with less correlation to public equities and credit
- Increased allocations to private equity and other private strategies
- Selectively adding to US Treasuries at the 2-year and 3-year maturities

Strategic Asset Allocation View (7-years)

Given elevated equity valuations globally, we expect mid-single digit nominal pre-tax equity returns (5.5%-7.0%) annually over a seven-year forecast period.

Returns in any individual year may vary considerably vs. the 7-year annualized forecast. We expect returns in 2022 could be well below the 7-year forecast given tougher comparisons with 2021 and the impact of a monetary policy tightening cycle just getting underway by central banks. Additionally, it is likely that a recession may occur at some point during this forecast period.

We anticipate increasing bouts of episodic volatility over the medium term (driven by surges

in headline inflation, slowdowns from stimulus-induced peak growth levels, geopolitical tensions, and uncertainty regarding the magnitude and duration of interest rate hikes by central banks, especially the US Fed.

US and Canadian government bond yields are now reasonably attractive.

US and Canadian 3-year Treasury bond yields are now yielding 270bps and 250bps respectively.

Relative to public markets, we forecast significantly higher returns for risk assets across private market strategies (i.e., private equity, private credit and real estate funds).

Asset Class: Strategic Outlook (7-Year Timeframe)

EQUITIES	Negative - Neutral - Positive	Average Annual Return
US Large Cap (S&P 500)		Mid Single-Digit
US Small Cap (Russell 2000)		Mid Single-Digit
MSCI Europe		Mid Single-Digit
Japan Topix		Mid Single-Digit
MSCI Emerging Markets		Mid Single-Digit
FIXED INCOME		
US Treasury		Low Single-Digit
US Corp Investment Grade		Low Single-Digit
US Corp High Yield		Mid Single-Digit
US Corp Levered Loans		Mid Single-Digit
ALTERNATIVES, PRIVATE EQUITY & REAL ESTATE		
Real Estate (Private) / Infrastructure		Mid/High- Single-Digit
Alternatives (Hedge Funds)		Mid/High- Single-Digit
Private Credit		High SD / Low DD
Private Equity		Low-Teens

Tactical Allocation View

From a shorter-term standpoint (next 6-9 months), we believe that equity markets will likely remain range-bound with bouts of episodic volatility.

Investors are weighing positive factors such as a) still strong economic activity and b) very healthy consumer spending and balance sheets against potential negative factors including a) continued above-trend rise in monthly inflation reports, b) potential for further adverse developments in the Russia / Ukraine conflict and c) central banks actions and the potential for policy errors that may prematurely stall economic growth.

At this point, investors are well prepared for central bank interest rate hikes (especially in the US). However, adverse developments that could further increase inflationary pressures (i.e. new COVID strains or significant disruption to Russian energy supply) could certainly dent investor sentiment.

Recession risks (occurring sometime in 2023 or 2024) are increasing with most economists assigning 25%-35% recession probabilities

In the US, risks are rising primarily due to potential Fed policy errors (i.e. raising rates too quickly).

In Europe, risks are rising due to spillover on business confidence from the Russia / Ukraine conflict and high exposure to rising energy costs.

Equity markets could decline 25%-35% if recessionary conditions begin to emerge.

Government bonds are becoming more interesting as a portfolio construction tool.

Ten-year government bond yields have swiftly reached 2.9% and 2.8% in the US and Canada. We believe that the risk / reward becomes quite interesting around yields of 3.0% to 3.5% as intermediate duration government bonds have proven to be attractive hedges and money-making securities during recessions (which could occur in the event of a Fed or other central bank policy mistake).

Three-year bond yields are now ranging between 2.5% to 2.7% in Canada and the US and provide reasonably attractive yields without much duration risk.

We view Alternatives (which we define as hedge funds) as increasingly compelling.

As we expect greater equity market volatility coupled with less attractive equity return potential, we recommend hedge fund strategies that exhibit low correlations with equity markets and with one another.

A well-constructed Alternatives portfolio should be able to deliver 5%-9% annual returns with less than half the volatility of equity markets over multi-year time periods (offering a complement to fixed income).

Inflation and Central Bank Policy

Inflation has continued to climb across most geographies with considerable debate around whether inflation has peaked.

US headline CPI increased to 8.5% YOY in March 2022 while the core CPI increased to 6.5% YOY. These YOY increases have not been seen since the early 1990s.

There is clear recognition that inflation has spilled across many categories outside of those directly impacted by the pandemic and supply chain.

Wage inflation is pervasive and the unemployment rate continues to decline to historic lows.

However, there are signs that inflation may be peaking and may decelerate over the H2 2022 and into 2023.

In the US, the core CPI increased by 0.3% in March over the prior month, the smallest increase in several months. Prices in categories such as used cars are declining and may have material further declines from historically elevated levels.

As economies reopen post COVID and consumer spending shifts towards services, goods consumption may decline leading to deflation on goods pricing coupled with inflation on services (tends to be more measured and ramps over time).

Central banks face difficult challenges between controlling inflation without significantly disrupting economic growth.

Central banks across the developed world have adopted more hawkish rhetoric and have indicated desires to raise short-term rates to “neutral” by the end of 2022, with the potential to exceed this neutral rate if inflation does not subside. The neutral rate is the rate at which monetary policy is deemed to be neither stimulative or contractionary.

The Fed is currently expecting to raise the Fed Funds rate from near-zero levels to 2.25% by the end of 2022 and to a peak rate of 2.75% by September 2023 (based on median Fed officials’ projections).

Uncertainty remains high with regards to the appropriate level of interest rates hikes necessary to slow down inflation and keep inflation expectations anchored.

Markets are now expecting 50bps rate increases at each of the May, June, and July meetings. Bond markets have already priced in these aggressive hikes as bond yields have increased substantially since the start of the year and especially since March.

In the US, yields on 2-3 yr Treasury bonds have increased by roughly 200bps since the beginning of the year and the 10-year Treasury bond has increased to almost 3% (levels which it has only very briefly touched since the GFC).

Commodities

Do commodities warrant an allocation within portfolios?

Commodities have historically delivered relatively poor returns over long-term time frames

Over a 30-year period ending 12/31/21, the Bloomberg Commodity Index delivered a 2.7% annualized return vs. 8.2% for global equities and 5.2% for the Barclays Aggregate Fixed Income index

However, there have been periodic cycles of strong performance across the commodity complex (19.0% annualized returns over the Jan-2002 through June 2008 timeframe.)

There is a case for longer-term positive structural dynamics surrounding a variety of commodities (especially metals) and to a lesser extent fossil fuels.

In the case of metals, demand is expected to remain strong and increase as the “green energy” revolution picks up speed. Meanwhile, investment in new supply has been muted and will take significant time to ramp up.

The case for energy is less straightforward as fossil fuels are currently benefitting from a confluence of factors including a) very strong demand as economies reopen, b) muted supply with periodic disruption from OPEC+, c) disciplined response from US public shale drillers, and d) geopolitical premiums.

However, the marginal cost of production remains very low for US shale (\$35-\$40 per barrel). As such, supply discipline may wane at precisely the time period when demand begins to slow.

A wide range of commodities have appreciated substantially over the past 12-months and especially since the Ukraine war. As such, if there is a resolution in the conflict over the next several months, several commodities will likely witness 20%-30% pullbacks.

Investors may thus wish to build a small allocation to a diversified set of commodities (via dollar-cost averaging).

Equity Markets - Performance

Equity markets declined sharply by 5.4% in USD terms during Q1 2022 (ACWI Index) and have further declined by 3.2% through April 18, 2022 (bringing the YTD performance to -8.3%).

US stocks have modestly outperformed international stocks YTD, more recently with substantial outperformance since the start of the Ukraine conflict on Feb 24, 2022.

Global value stocks have sharply outperformed global growth stocks thus far through 4/18/22 (-1.9% vs. -14.7%) as growth stocks have been hit hard due to valuation compression associated with rising interest rates.

The energy sector has been the best performer YTD (+26.3% for ACWI Energy and +47.3% for S&P 500 Energy).

Over our 7-year forecast period, we continue to believe that stocks of high-quality companies will outperform cyclical stocks given their better business models, superior earnings growth and strong returns on capital.

However, over the next 6-12 months, value stocks may continue to outperform quality and growth stocks in a period of still strong economic growth, high inflation, and rising interest rates.

We continue to advocate a barbell approach in terms of equity positioning with exposure to both high-quality compounders & technology growth stocks and, at the other end cyclical stocks in economically-sensitive sectors (financials, energy, certain industrials, and materials).

Equity Indices (as of 4/18/2022)

Total Returns (%) - USD

	YTD 2022	Mar-22 QTR	Annualized Returns			
			1Y	3Y	5Y	7Y
US Large Cap (S&P 500)	-7.6%	-4.8%	6.0%	16.1%	14.8%	12.7%
US Small Cap (Russell 2000)	-11.1%	-7.5%	-11.1%	9.7%	9.3%	8.3%
MSCI EAFE	-9.0%	-5.9%	-6.1%	5.7%	6.2%	4.2%
MSCI Emerging Markets	-9.5%	-7.0%	-16.1%	2.8%	5.3%	3.3%
MSCI ACWI	-8.3%	-5.4%	-0.8%	11.5%	11.1%	8.8%
Russell 1000 Growth	-14.2%	-9.1%	0.7%	20.0%	19.6%	16.3%
Russell 1000 Value	-1.2%	-0.7%	7.4%	12.0%	10.4%	9.5%

Equity Markets - Valuation

Current equity valuations are mixed globally relative to history.

Valuations for the S&P 500 are roughly 15% higher than past 10-year historical averages.

Valuations for international markets appear to be slightly undervalued relative to history.

However, earnings variability is much higher for international markets. With inflation and geopolitical challenges, international earnings forecasts for 2022 and 2023 are more susceptible to sharp downward revisions relative to S&P 500 earnings forecasts.

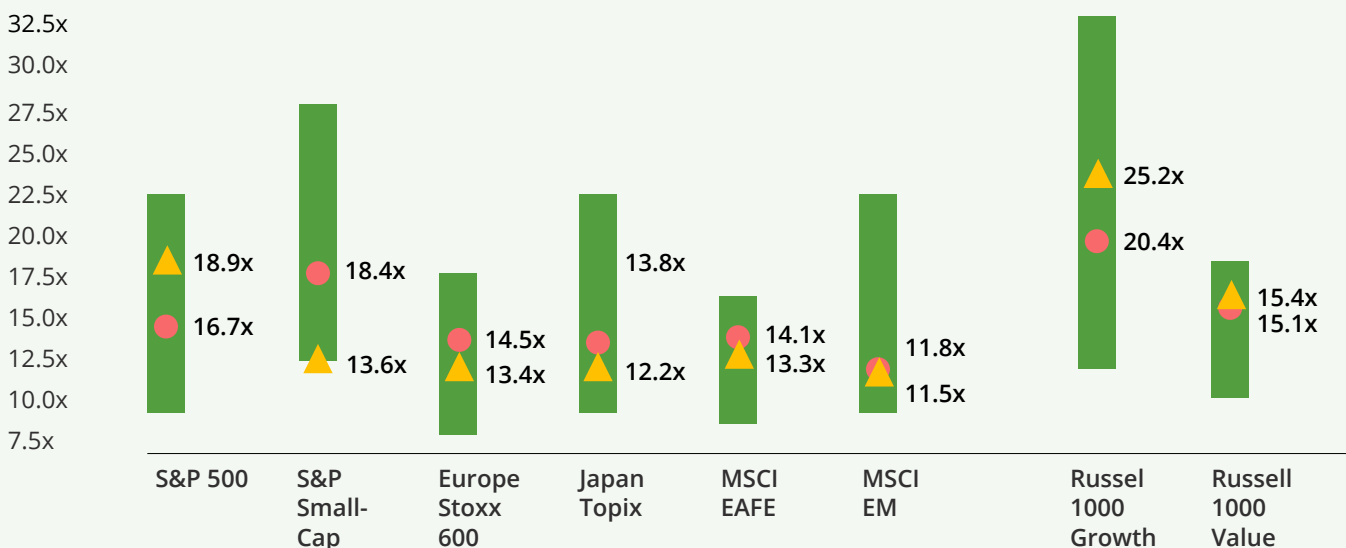
US Equity market valuations are no longer particularly cheap relative to bonds.

The S&P 500 presently trades at 18.8x consensus 2022 earnings.

Historically, the S&P 500 earnings yield (inverse of multiple) has averaged 250-350bps over 10-Year Treasuries. Based on that metric, a 15.5x-18.5x forward EPS multiple is “fair” for the S&P 500.

However, one could argue that equities are still undervalued on a real-yield basis. Presently, the real yield on 10-Year Treasuries is roughly flat (using 10-year expected inflation rates). If the S&P 500 traded at 450-500bps premium to real-yields which would justify a 20x-22x forward multiple.

Equity Valuation –NTM P/E Multiple Ranges (10-Year History)



Fixed Income Markets - Performance

Fixed income markets had a tough Q1 and have declined further in Q2 in the face of rising interest rates.

Persistently higher levels of inflation have led to increased hawkishness by major central banks. The US and Canadian central banks are now signaling aggressive rate hikes in 2022 and likely into 2023.

High yield bonds have declined due to a rise in base interest rates coupled with some modest spread widening (as markets have become more risk-off in the face of inflationary and geopolitical pressures) and Investment Grade bonds more so due to their longer durations on average.

However, leveraged loans are holding up well as investors have flocked to floating rate debt securities.

Fixed Income Indices –Characteristics and Performance in USD

(as of 04/18/2022)

	% Ret YTD 2022	% Ret Mar-22 QTR	Annualized Returns				Duration (yrs)
			1Y	3Y	5Y	7Y	
US Treasury	-8.2	-5.6	-7.0	0.7	1.0	0.9	6.5
US Corp. IG	-11.1	-7.7	-9.2	1.5	2.2	2.3	7.8
US Corp. HY	-6.8	-4.8	-3.5	3.5	4.2	4.6	4.1
US Corp. Lev. Loans	0.4	0.1	3.4	4.0	4.1	4.0	NA
Barclays US Aggregate	-8.8	-5.9	-7.9	0.8	1.2	1.4	6.6
Barclays Canada Agg*	-9.1	-6.8	-7.1	-0.2	0.7	1.0	7.4

* Barclays Canada Aggregate Index returns in CAD

Fixed Income Markets - Valuation

Government bond yields have risen sharply since year-end

Bond yields are significantly higher than 10-year average levels although still below levels seen during the 2000-2006 period.

Corporate spreads (investment grade and high yield) have widened modestly.

IG and HY spreads are slightly above pre-pandemic levels.

Credit performance remains strong with default rates well below historical levels. Abundant liquidity raised during the pandemic coupled with strong economic conditions and corporate earnings are likely to result in range-bound credit

spreads over the next 12-18 months.

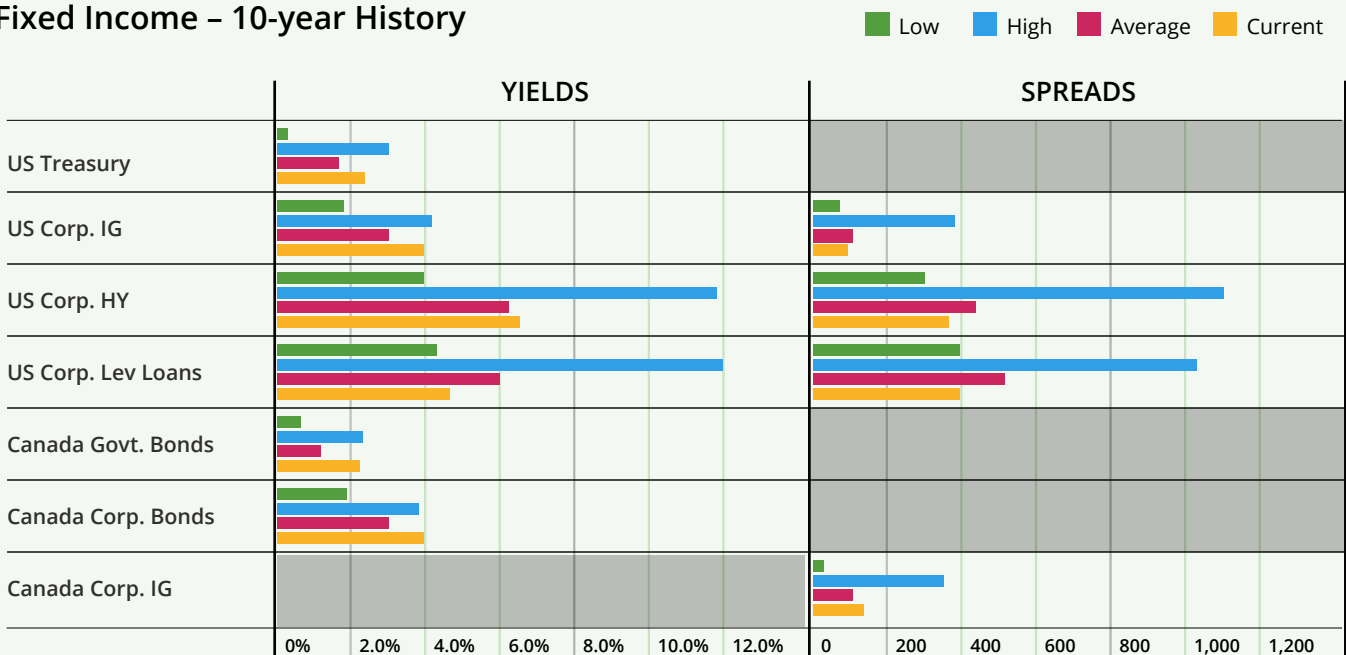
However, credit spreads may widen if investors believe central banks may commit policy mistakes by raising interest rates too quickly.

We prefer credit exposure through hedge funds and private credit strategies.

Hedge funds tend to invest in more catalyst-driven special situations with higher upside and contained downside (via single-issuer short positions).

Private strategies can invest in smaller off-the-run restructurings and rescue financings with higher yields, albeit the opportunity set is more limited in the current strong liquidity environment.

Fixed Income – 10-year History



Alternatives and Private Investments

Hedge fund returns were modestly down in the quarter at -1.4% (far better than bonds).

Global macro and merger arbitrage strategies delivered modest upside (+1.0% and +0.6% respectively) while event-driven and credit strategies declined 1.9% and 5.2% respectively,

Private real estate fundamentals continue to be strong (especially in apartment and industrial properties).

Industrial and multi-family properties are experiencing robust rental growth amidst strong demand.

Rental rates for new leases are increasing 10%-20% in many markets, and with roughly 1/3 of tenants repricing every year these subsectors have strong visibility to 5%+ rental growth rates over the next 2-3 years.

Cap-rates remain very tight despite the sharp rise in Treasury yields in sectors with strong operating fundamentals

US multi-family and industrial (warehouse) cap-rates are in the low-high 3% range.

Real estate continues to be an attractive hedge to inflation given the ability for rental resets.

In Q1 2022, private equity deal activity and exits moderated from 2021 record levels.

Exits dropped 55% from a frenzied Q4 2021 pace and 16% YOY vs. Q1 2021, as equity markets declined and volatility increased.

Large scale PE firms are increasingly putting capital behind the software sector, with several prominent take-private transactions led by Vista and Thoma Bravo, given the sharp dislocations in public software company valuations.

Venture capital activity slowed during Q1 2022 following a blistering 2021.

Global venture capital funding slowed sequentially to \$160bln in Q1 from \$185bln in Q4.

Similarly, venture capital deal value was down 20% in Q1 relative to Q4 2021.

Valuations across the venture complex have stumbled in early 2022 (especially in the public markets) as high-flying technology company valuations have compressed markedly in conjunction with rising bond yields.

Thus far, valuation compression has been highest in public companies and later-stage private rounds.