



Some Thoughts on Bear Markets and Recessions

Making sense of turbulent markets in 2022

June 2022

Recently, there have been many questions from investors around bear markets and recessions, and what that means for their portfolios. In this note we have condensed and collated some key thoughts in order to provide a framework to help investors analyze and understand the relationship between bear markets and recessions. To be clear – we are not saying that the U.S. or the world is already in recession, or that we believe we will enter a recession in the near future. Rather, this note provides a framework for investors to think about determinants and potential future outcomes. As a quick recap, bear markets are very often defined as price declines of at least 20% from the previous peak. Recessions are generally understood to mean a period of at least two consecutive quarters of declining economic activity or GDP.

Bear Market Levels Breached

Looking at recent declines from highs, as of June 14th the Nasdaq is most clearly in bear market territory, while other major indices like the MSCI ACWI / S&P500 / Russell 1000 have just breached those levels.

Market declines in 2022 have not been uniform. What is interesting is that the swoon of the Stoxx 600 in Europe was not as far advanced as the fall in the S&P 500. But this is likely to do with

composition as a larger proportion of the European equity market is in more defensive sectors such as healthcare (13.7%), or commodity beneficiaries such as oil & gas (6.8%).¹ That stands in contrast to the S&P 500, where IT at around 28%¹ is the largest single sector, with energy having only a small share at 3.7%.¹

Some Stylized Facts About Bear Markets

Here are some key facts and figures about bear markets, taking the U.S. experience and the S&P 500 as an example:

1. Bear markets are not unusual.

Since 1928 all told there have been 26 bear markets in the S&P 500.

2. Bear markets tend to be shorter than bull markets.

The average length of a bear market is 289 days, (about 9.6 months). With the S&P500 having fallen 22% as of 6/14/2022, we are currently 161 days through this downturn, so approximately half of the average time taken (The longest bear market on record was in 1973-74 at 630 days, while the shortest was in 2020 at the onset of the coronavirus pandemic). Bull markets by comparison have averaged 991 days (2.7 years).



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¹ As of May 19, 2022.

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Equity Markets Entered "Bear Markets" Territory in June

(Fig. 1) Percentage change from 52-week high.

	52 Week High		Index Level as of 6/14/22	Change	# days
	Date	Index Level			
NASDAQ Composite Index	11/22/2021	16,212.2	10828.4	-33%	204
Russell 1000 Index	01/04/2022	2672.00	2050.08	-23%	161
S&P 500 INDEX	01/04/2022	4818.62	3735.48	-22%	161
STOXX Europe 600 Price Indewx E	01/04/2022	495.46	407.32	-18%	161
MSCI ACWI Index	01/04/2022	761.21	593.77	-22%	161

Past performance is not a reliable indicator of future performance.

All data and analysis is as of June 14, 2022.

Sources: Bloomberg Finance L.P.

3. Average losses in bear markets.

Since 1948 stocks have lost 36% on average in a bear market. By contrast, stocks have gained 114% on average during a bull market.

World War there have been 12 recessions in the U.S. and the median peak to trough decline in the S&P 500 has been 24%. The average decline has been greater at around 30% (left tail risk).

4. A bear market doesn't necessarily indicate an economic recession.

There have been 26 bear markets since 1929, but only 15 recessions. What investors need to keep in mind is that bear markets tend to track a slowing economy, but a declining market doesn't necessarily mean that a recession is looming.

If we think of the largest drawdown in the S&P 500 this year of 22% to June 14 versus the average decline in a recession, that could be taken to imply that markets then were pricing in a 22/30 = **75% probability of recession.**

Recessions And The Equity Market

We next consider recessions and their relation to equities and what potential lessons history may have for us, again using data from the U.S. and the S&P 500 for convenience.

So far we have had one quarter of negative QoQ growth in US GDP (-1.4% annualized for Q1 2022, first reported on April 28). According to Bloomberg, the expectation of a US recession in the next 12 months is quite high at 31.5%. Markets are arguably pricing in an even higher recession risk when investors consider the magnitude of the peak-to-trough move in the S&P 500 in 2022 versus history.

Some observations on recessions:

1. Frequency and amplitude.

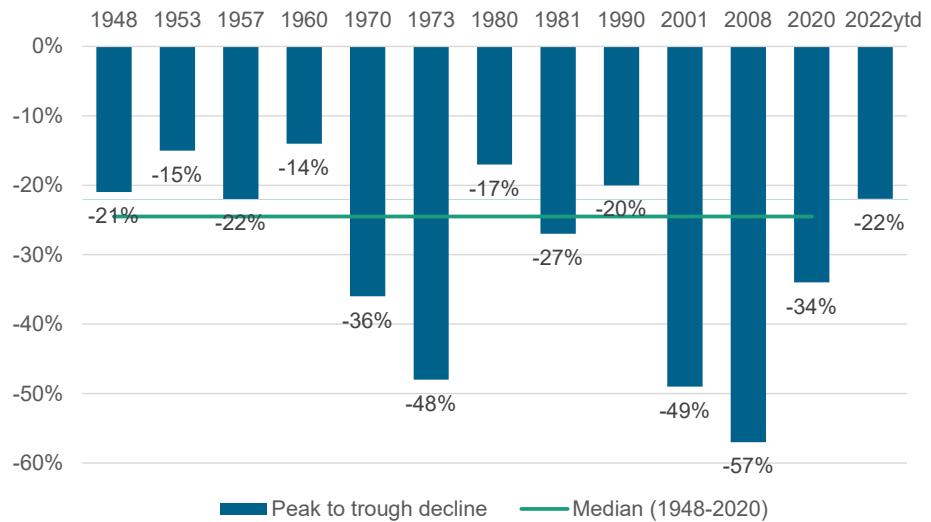
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A key point of timing worth noting is that peak-to-trough market declines don't necessarily reflect the performance of the market for the duration of a recession. Markets are forward looking and usually discount much of the bad news in advance. Thus the S&P 500 has had positive returns in half of the recessionary periods since 1948.

2. Multiple contraction. The market P/E multiple typically starts contracting ahead of a recession. Research by Goldman Sachs indicates that since 1980, the market multiple on average has peaked 8 months before the recession and contracted by a median of 21% from peak-to-trough. Looking at the S&P 500 market multiple in 2022, it had come down by around 20% by

S&P 500 Declines Around Recessions Since WWII

(Fig. 2) Peak-to-trough declines for each recession versus the median.



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As of May 18, 2022.

Source: Goldman Sachs Global Investment Research.

the May low before stabilizing in early June.

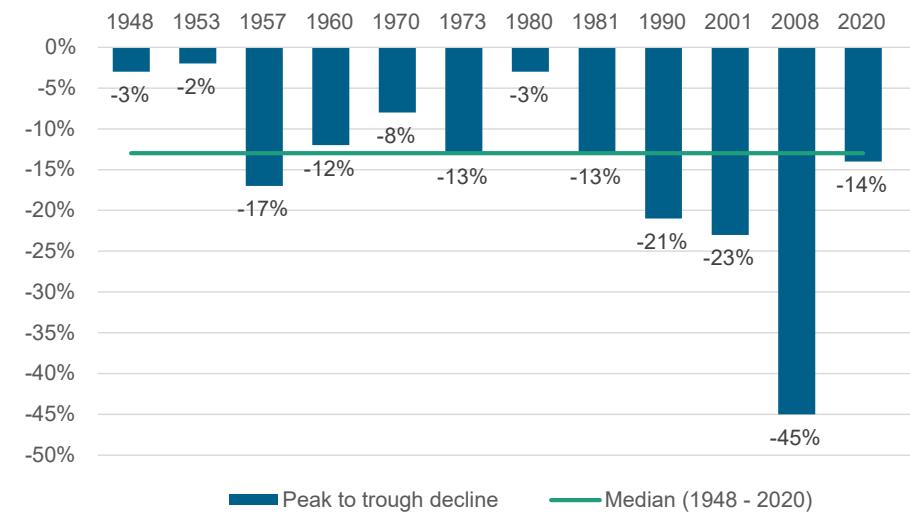
3. Earnings in a recession. For the same postwar period discussed above, earnings for the S&P 500 dropped by some 13% around recessions (median decline). Currently, the market is still forecasting decent earnings growth for 2022, but recently

consensus earnings have been cut by 1% compared to previous estimates.

History would suggest that **equity analyst cuts are a lagging indicator**. Since 1990, the median EPS cut ahead of a recession was about 10%, while the next 6 months from the start of a recession saw further

S&P 500 Earnings Declines in Recessions Since WWII

(Fig. 3) Peak-to-trough S&P 500 Last Twelve Months EPS decline.



As of May 18, 2022.

Sources: Goldman Sachs Global Investment Research.

significant earnings downgrades of around 13%.

4. Markets move in advance.

Research indicates that across these 12 instances of recessions since WWII, equity markets began to price a recession on average **7 months before** the official recognition of a U.S. recession by the NBER (National Bureau of Economic Research).

Relevance to Today's Markets

It's been said that "History doesn't repeat itself, but it often rhymes". Given what markets currently appear to be pricing in and the amount of uncertainty in the environment, it may be useful for investors to try and frame the analysis and match it to potential outcomes. Based on the median historical peak-to-trough market decline in a recession would imply further mid to high single digit falls in the S&P 500 are likely should a recession unfold. If one were to assume that earnings were to similarly mirror past revisions, then arguably there might be further downside for equities of around 13% (assuming no major further external shocks to the economy).

But **some things are different today**, and **there are also positives from history** that are worth paying attention to.

1. Earnings tend to bounce back after recessions.

While median earnings have fallen 13% on average around recessions, in the four quarters following the trough median earnings have rebounded by 17%.

2. Growth outweighs contractions.

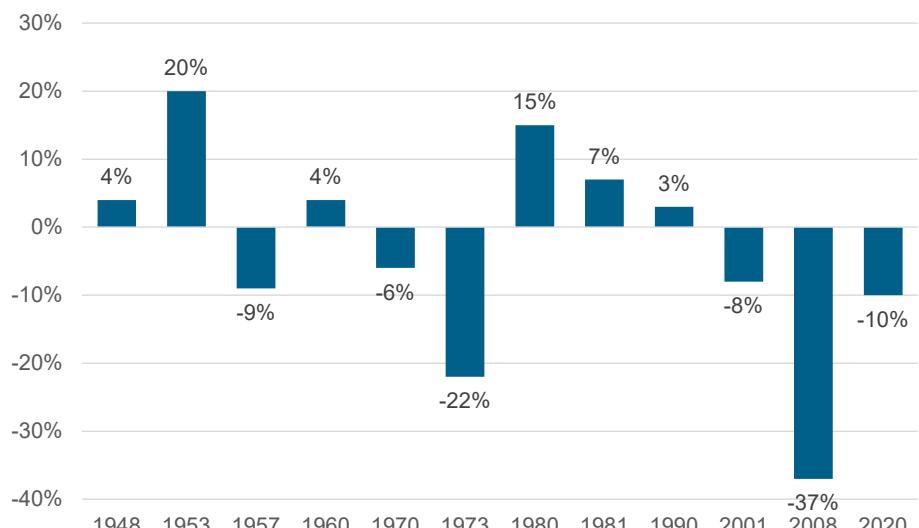
Excluding the Great Depression from 1928-1939, US recessions have lasted **an average of about 10 months**. The recession which followed the global financial crisis in 2008 was unusually severe and lasted 18 months. On the other hand, the economic expansion that followed is the longest on record and lasted for more than 10 years.

3. Stock markets can perform even in recessions.

Stocks have actually returned positive performances in 6 of the 12 recession periods post WWII as defined by the NBER. Moreover, when looking at market performance after periods of

Equity Performance During Recessions Since WWII

(Fig. 4) Percentage change in S&P 500 in recessions as defined by NBER.

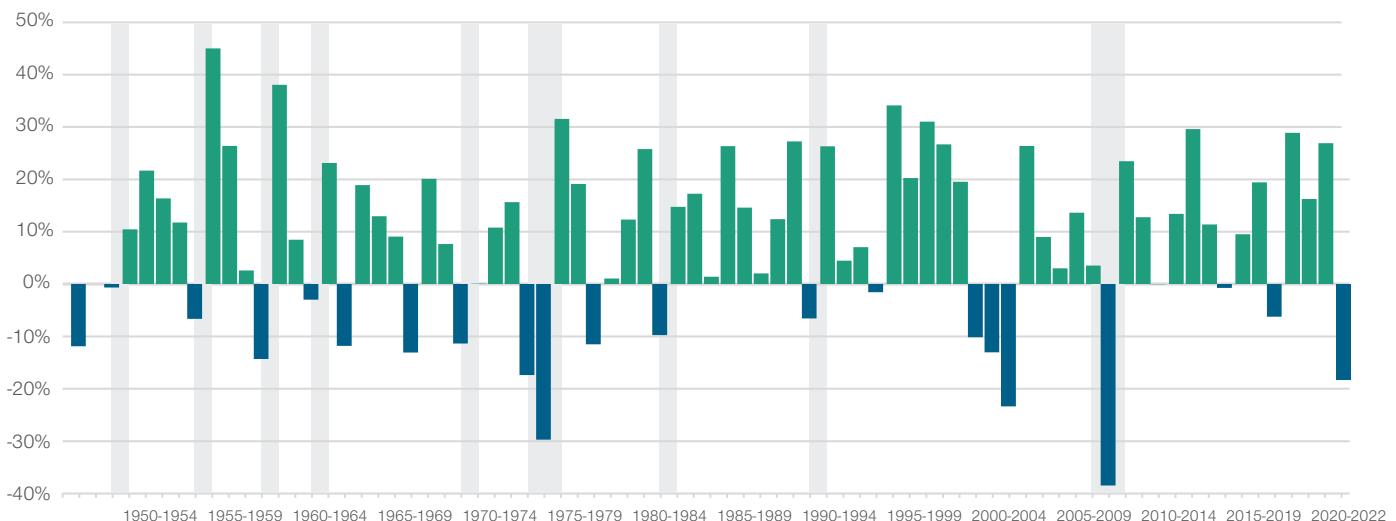


Past performance is not a reliable indicator of future performance.

Sources: T. Rowe Price analysis using data from Bloomberg Finance L.P., National Bureau of Economic Research.

Market Performance around Recessions

(Fig. 5) Annual percentage change in S&P 500



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As of June 14, 2022.

Source: Bloomberg Finance L.P., National Bureau of Economic Research.

Source: Bloomberg Finance L.P.; National Bureau of Economic Research. There is no guarantee that any forecasts made will come to pass. Actual results may vary.

recession, it has tended to be quite strong.

Figure 5 shows the annual performance of the S&P 500 with NBER recession periods shaded grey. What one can see clearly from the chart is that more often than not, equity returns over the 12-24 months following a recession have been strongly positive.

Global markets have performed quite differently in 2022. Some markets appear to be further along the bear market path than others. A number of Asian markets, for example, peaked a while ago and have already experienced significant drawdowns. In contrast, developed European equity markets have so far been more resilient, though they face the challenge of higher energy prices in the second half due to the sanctions on Russia and slowing activity. The recent end to China's Covid lockdowns combined with further policy easing has triggered an improvement in sentiment towards Asian equity markets.

Concluding Thoughts

None of this is to suggest that we are either already in or about to enter a recession. Rather it is a reminder that recessions are part of the business and economic cycle. And while every recession will likely have a different cause, there are some similarities in how they play out in markets – multiples compress in advance, earnings cuts follow, and then post the trough as business and consumer confidence expands we typically see earnings respond robustly, with a strong market recovery.

Keeping pullbacks and market corrections in proper perspective is important and they should be a time for investors to analyze and assess the risks compared to the opportunities that the market presents. As Warren Buffett has said, it is wise for investors to be “fearful when others are greedy, and greedy when others are fearful”. But it also clearly helps to truly understand what we as investors are fearful of.

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