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Nasdaq

Speedbump or Sequel?

Kevin Davitt
Head of Index Options Content
Nasdaq

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Speedbump or Sequel?

-Another “Financial Crisis” or Just a Short Setback as Interest Rates Normalize?

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Index

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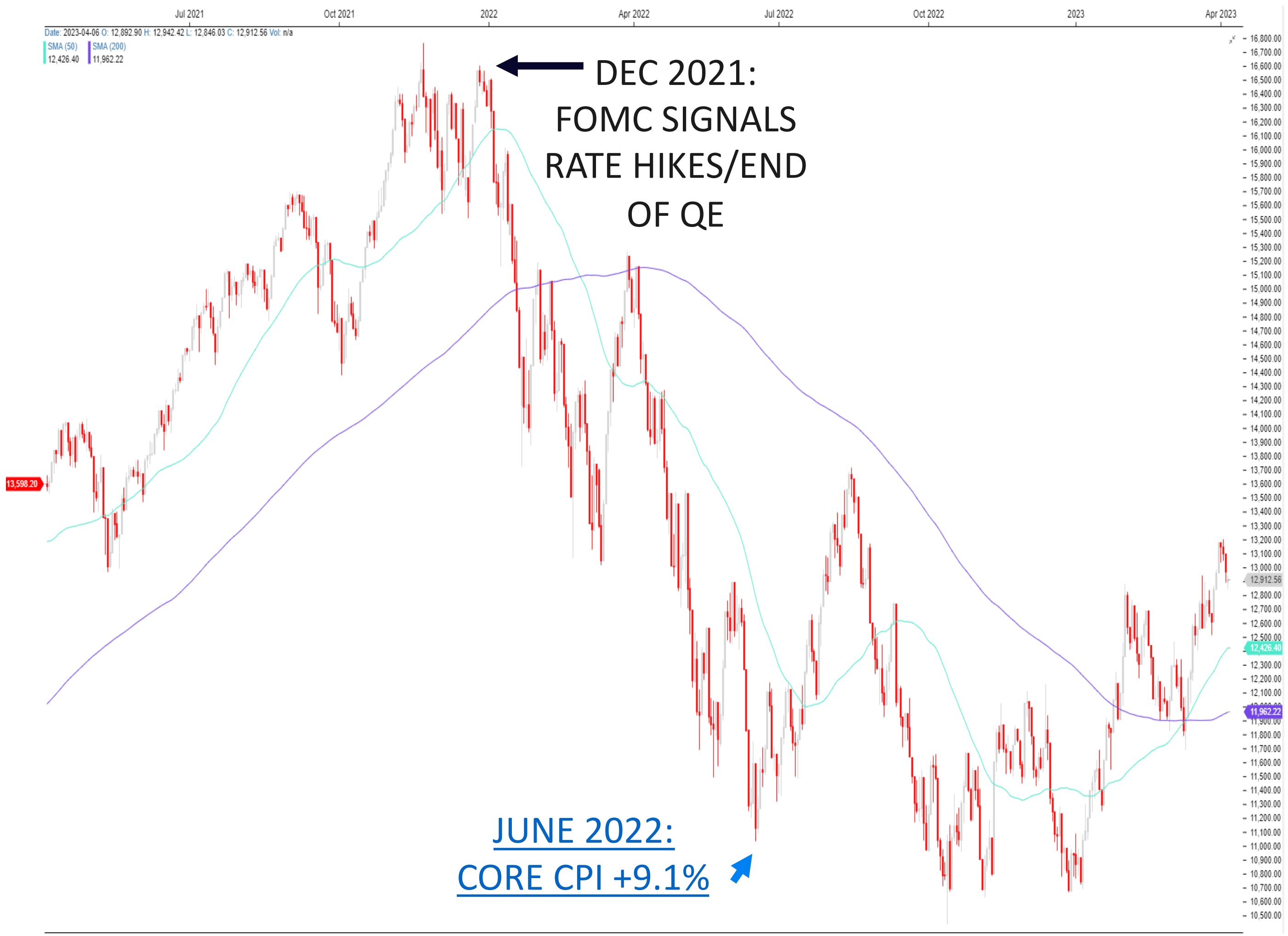
Speedbump or Sequel?

Thesis: Recession without Crisis (hopefully)

- FOMC started hiking rates in March of 2022.
    - Historically, a lag of 9-24 months between tighter monetary policy & lower inflation metrics.
    - FOMC has moved the Fed Funds rate up to 4.75-5.00% (from 0-0.25%) in March of 2022.
    - Inflation metrics continue to run above Fed Fund rate & long-term target.

- Why?
    - U.S. economy is a vast, complex ecosystem with interconnected forces.
    - Businesses and consumers take time to adjust plans/behavior.

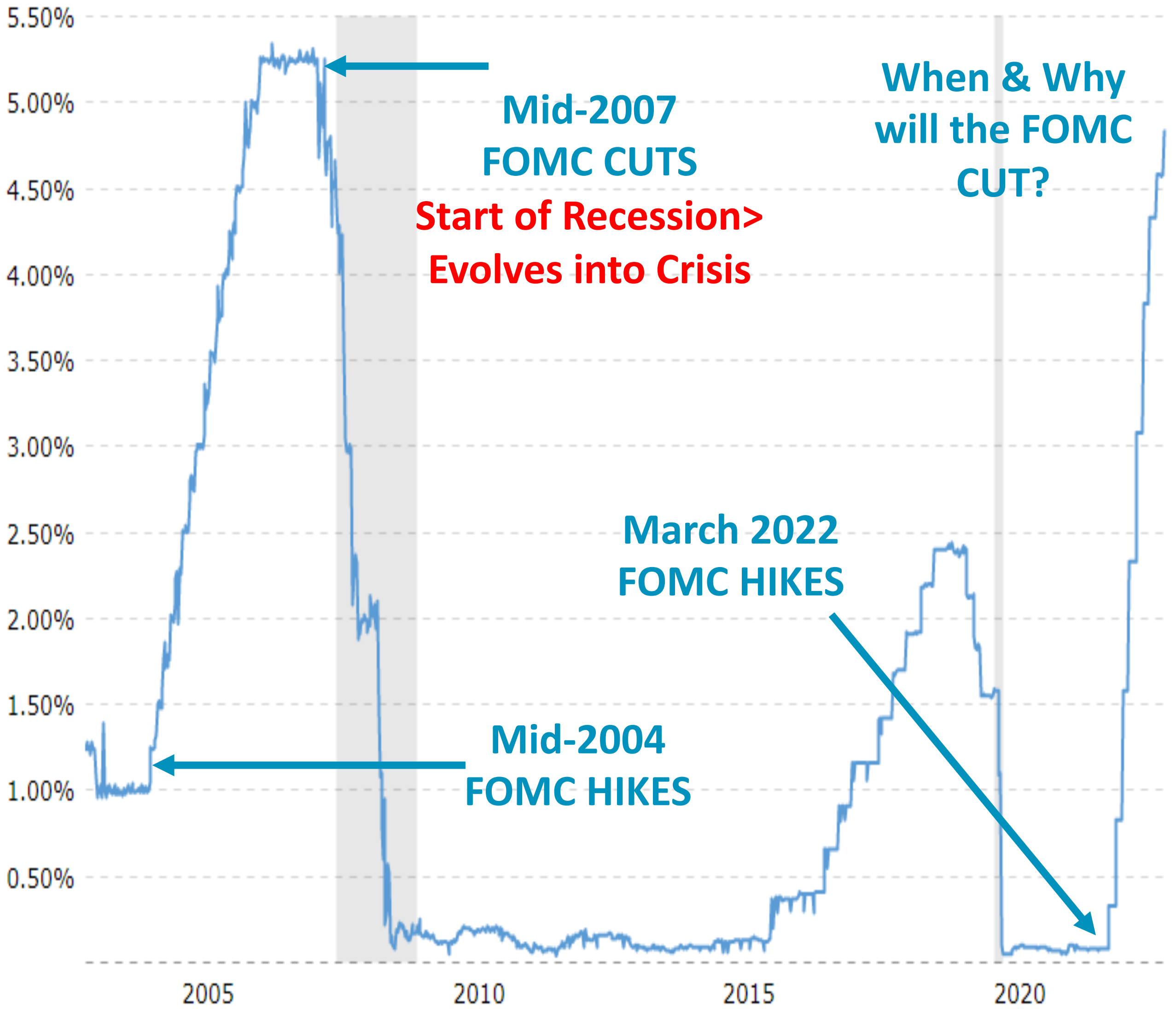


Source: LiveVol Pro

Lag in Monetary Policy

- FOMC Hikes Aggressively into Financial Crisis
  - June 2004 – July 2006 Fed Funds Rate moved from 1.00% - 5.25% (+425 bpt).
  - Asset prices climbed (led by housing) during period of loose monetary policy.

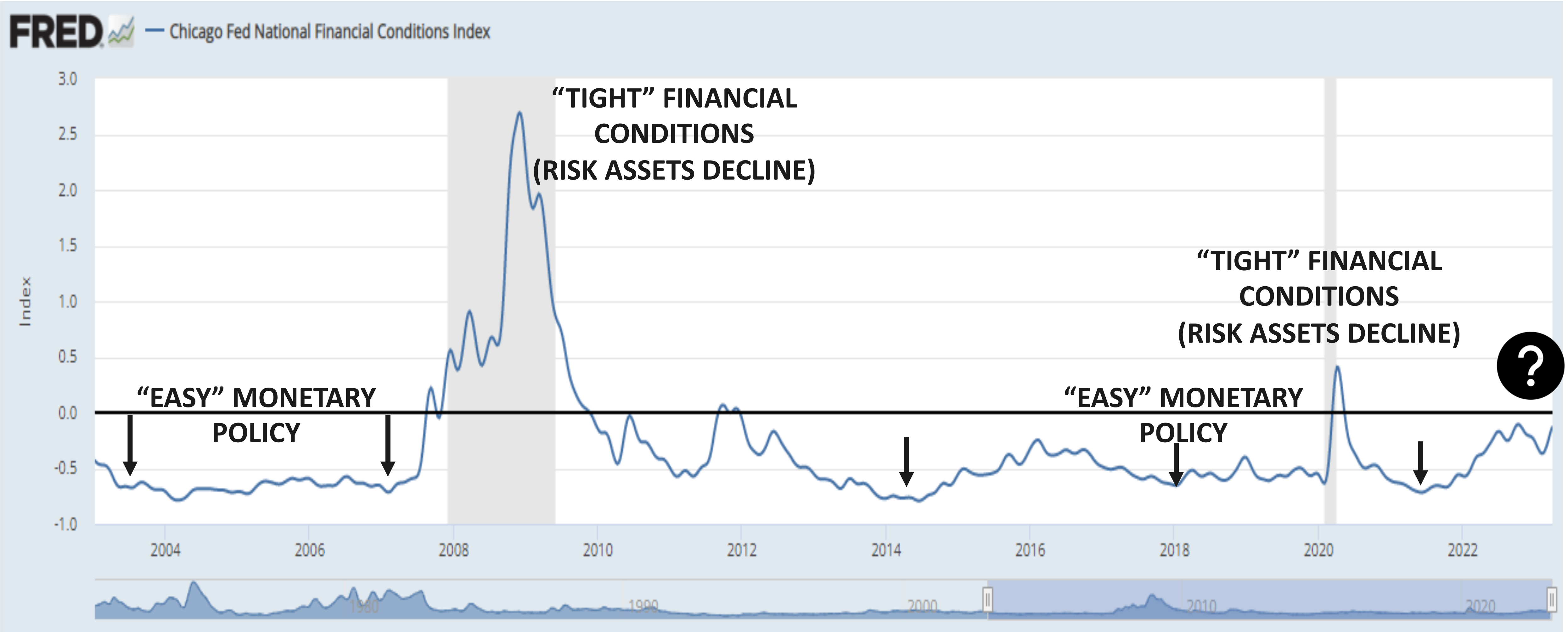
- Until Something "Breaks"…
  - Mid 2007, two Bear Stearns hedge funds liquidated.
  - Significant cracks in credit markets emerge led by Mortgage-Backed Securities (MBS).



Source: MacroTrends

Speedbump or Sequel?

Financial Conditions



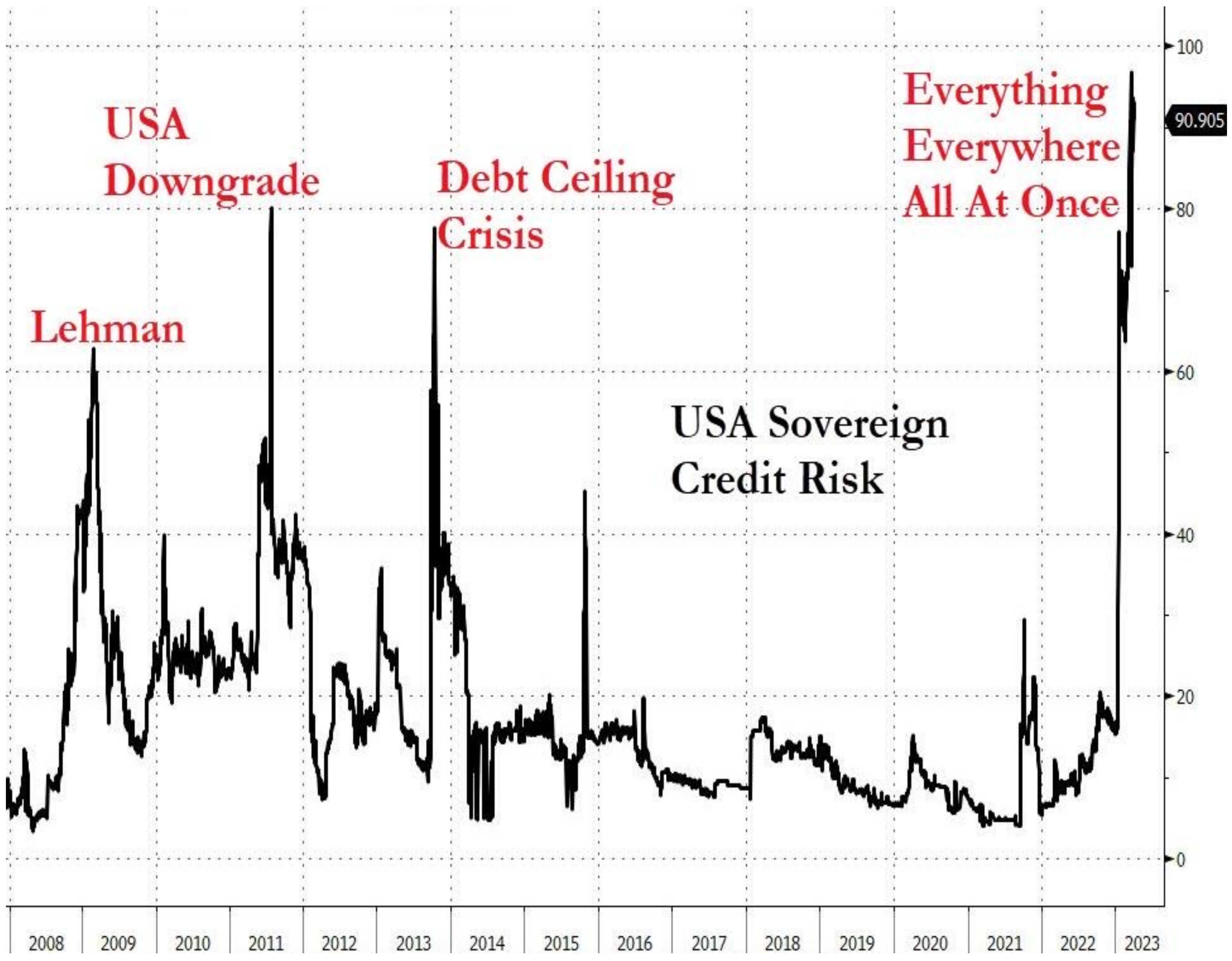
Source: St. Louis Fed

Speedbump or Sequel?

Similarities:

- Strains in Fixed Income Markets
  - Short-term lending markets are key to US/Global markets.
  - Analogy: Plumbing – only considered when something is wrong.
  - Historically significant events: LEH, 2011 PIIGS/U.S. Downgrade, Debt Ceiling.

- Now?
  - The failure of SVB, etc. in mid-March tested the "plumbing" once again.
  - Fed stepped in to stem potential bank runs elsewhere.
    - [Bank Term Funding Program]



Source: Bloomberg/Zerohedge

Speedbump or Sequel?

Similarities:

- Bond Vol (MOVE Index) Relative to VIX
  - Rates vol was a leading indicator in previous instances.
  - There has been significantly higher realized vol in bonds than equities over the past year.
  - Market did not anticipate the velocity or magnitude of change in rates. (2022)

- What Now?
  - If/when spread narrows – Equity vol catch up (higher VIX/VOLQ) or Rates vol catch down (lower MOVE)?

Source: Bloomberg/Zerohedge

Speedbump or Sequel?

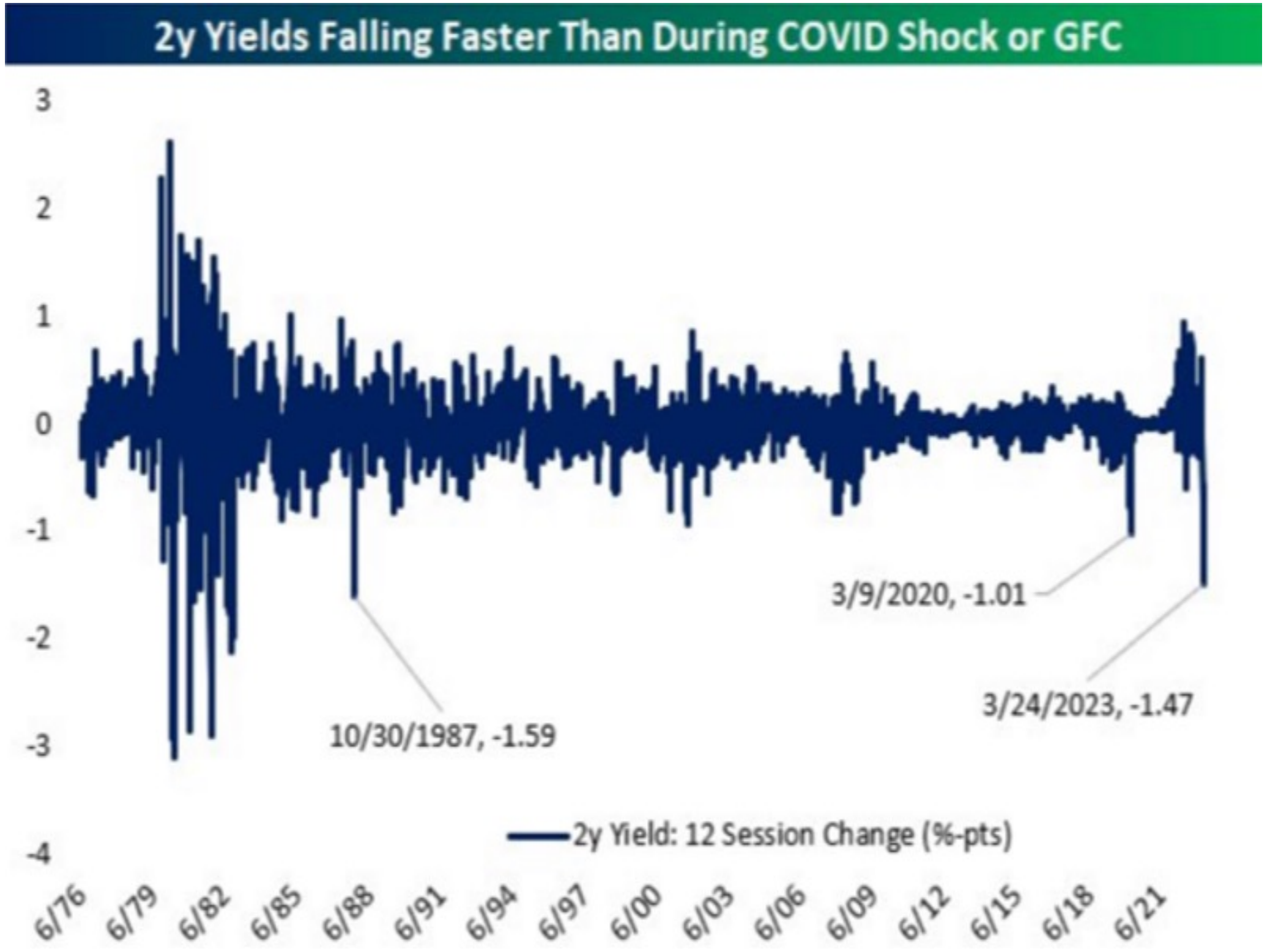
Zoom in on Vol Differentials

- MOVE Index
  - Bond (10Y) 30D forward volatility estimates remain elevated relative to historical “norm”.
- Equity Forward Vol Indicators
  - VIX Index – based on two strips of SPX options.
  - VOLQ Index – based on ATM NDX options.
  - JPM G7 Index - systematic long M2 VIX futures with rules based short M1 VIX futures.

Source: Cboe/ICE/JPM & Zerohedge

The Market Starting to Price FOMC Cuts

- Short-term rates move with the greatest velocity
  - Recently the short end of the interest rate curve has started pricing lower 2Y.
  - FOMC has moved the Fed Funds rate up to 4.75-5.00% (from 0-0.25%) in March of 2022.
  - Inflation metrics continue to run above Fed Fund rate & long-term target.
- Why?
  - Fallout from SVB/Regional banking issues shifted money back into short-term bonds (prices up/rates lower).



Source: Joe Weisenthal @TheStalwart

Financial Bankruptcies – Largest in U.S. History

- List includes Commercial Banks
  - Lehman Brothers had assets in excess of $600B prior to Sept. 2008 bankruptcy.
  - Deposits at commercial banks skyrocketed following COVID-19 shutdowns.
  - Duration mismatch & Held to Maturity v. Available for Sale issues for SVB, etc.
- Why?
  - Fallout from SVB/Regional banking issues shifted money back into short-term bonds (prices up/rates lower).

Bank name	Bank failure date	Assets*
Washington Mutual Bank	Sept. 25, 2008	$307 billion
Silicon Valley Bank	March 10, 2023	$209 billion**
Signature Bank	March 12, 2023	$110 billion**
IndyMac Bank, F.S.B.	July 11, 2008	$31 billion
Colonial Bank	Aug. 14, 2009	$26 billion
First Republic Bank-Dallas, N.A.	July 29, 1998	$17 billion

**Assets rounded to nearest billion*

***From the Federal Reserve as of Dec. 31, 2022*

**** This list only includes failures and does not include banks that were provided assistance.*

Source: Bankrate

-3M Bills + 2Y Bills

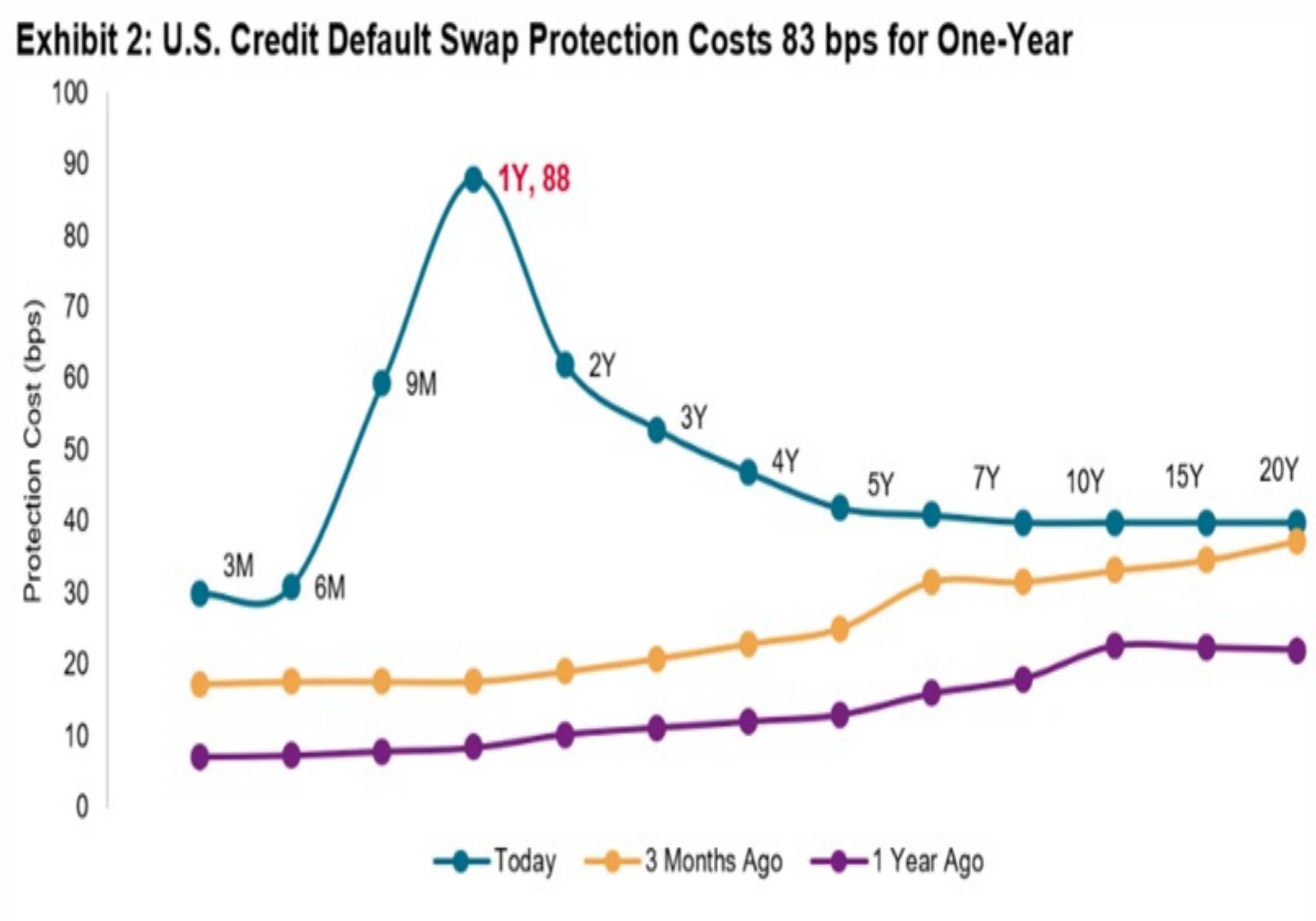
- Cause for Concern
  - Largest inversion in the 2Y Note – 3M Bills in decades.
  - Countless inversions along the U.S. Treasury yield curve.
  - Increases pressure on the "financial plumbing".

- Why?
  - Inversions typically precede recessions (When?).
  - Incentivizes savings over consumption.

Source: Bloomberg

Unique…But Scary

- The Debt Ceiling Issue
  - Debt limit will be reached/breached between July & September.
  - Been raised 102 times since WWII.
- Allows Treasury Dept. to issue debt (sell bonds) to finance operations
  - Relied upon to fund Social Security obligations, Federal employees, vendors, etc.
- Credit Default Swaps
  - Reflect perceived default risk – in this case for U.S. Government.
  - Cost of protection across the curve has increased dramatically.

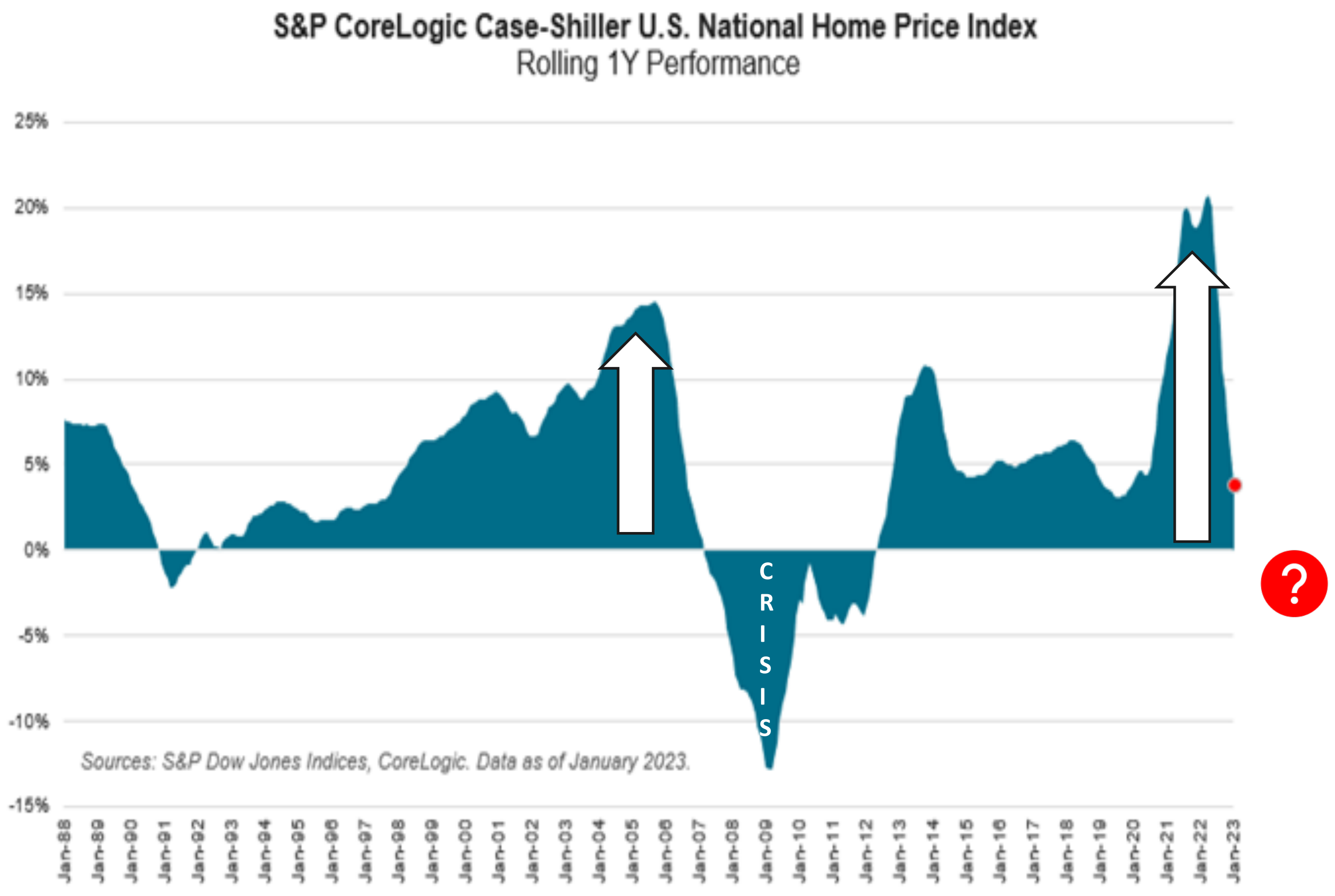


Source: Dow Jones S&P

Speedbump or Sequel

Rhyming with 2008?

- A Decade of Historically Low Interest Rates
  - Capital flows to where there's opportunity (most productive).
  - 2012 – 2019 = "relatively stable growth" in residential real estate.
- 30Y Mortgage Rates < 3.00% mid-2020 + Fiscal Stimulus + WFH
  - Premium placed on square footage as opposed to proximity to office.
  - Huge moves (Y/Y) in home values.
- 15-20% of U.S. GDP is Housing Related
  - What's future path?

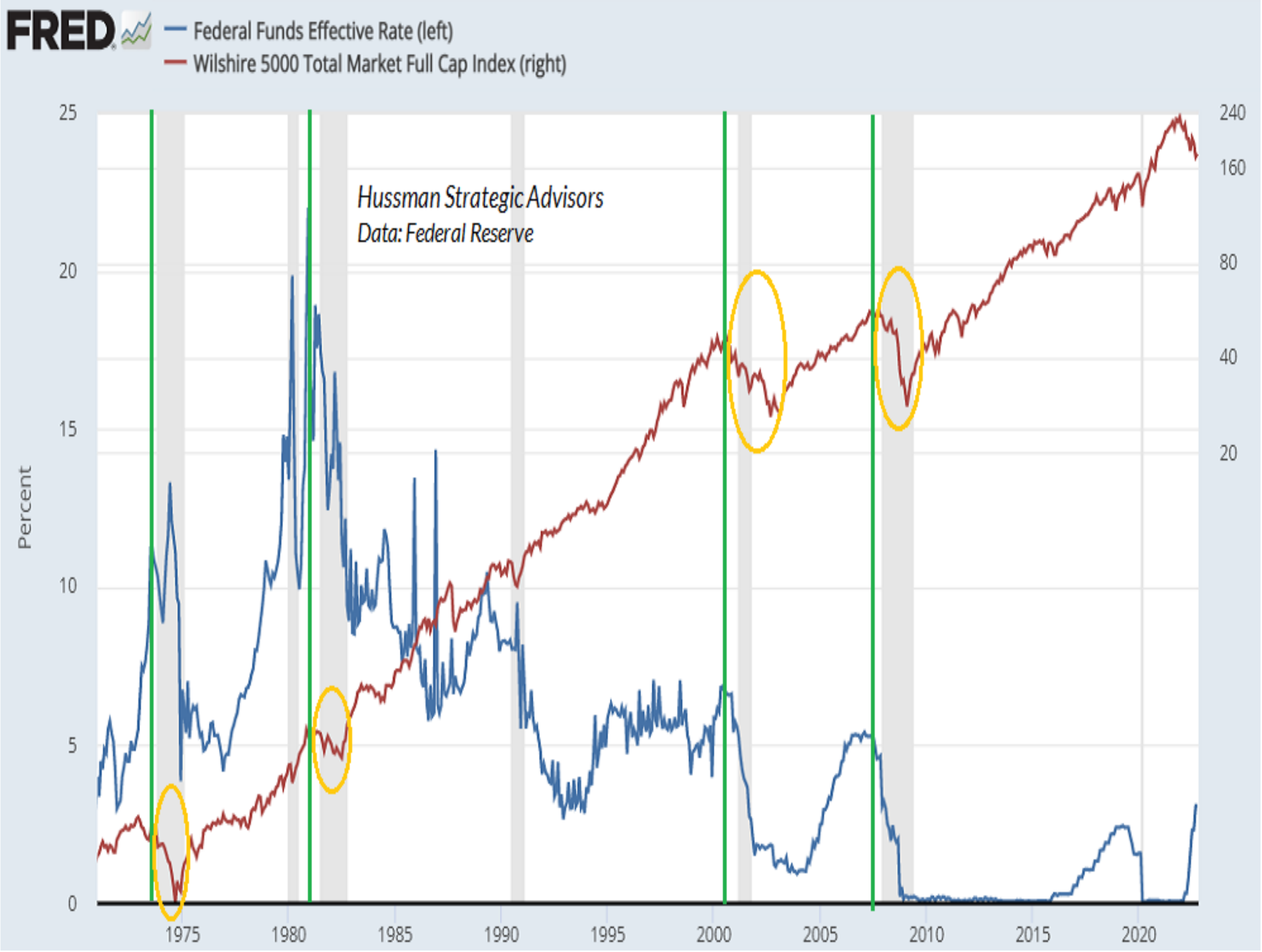


Source: S&P Dow Jones Indices, CoreLogic

When Rates Move Up Quickly…

- …Sometimes Stuff "Breaks"
  - Did it happen in 2022?
- Similar "setup" (green lines)
  - Mid-70's (OPEC/Inflationary)
  - Early-80's (Volcker Shock)
  - Early Aughts (Dot com implosion)
  - Mid-2000's (Prior to Financial Crisis)

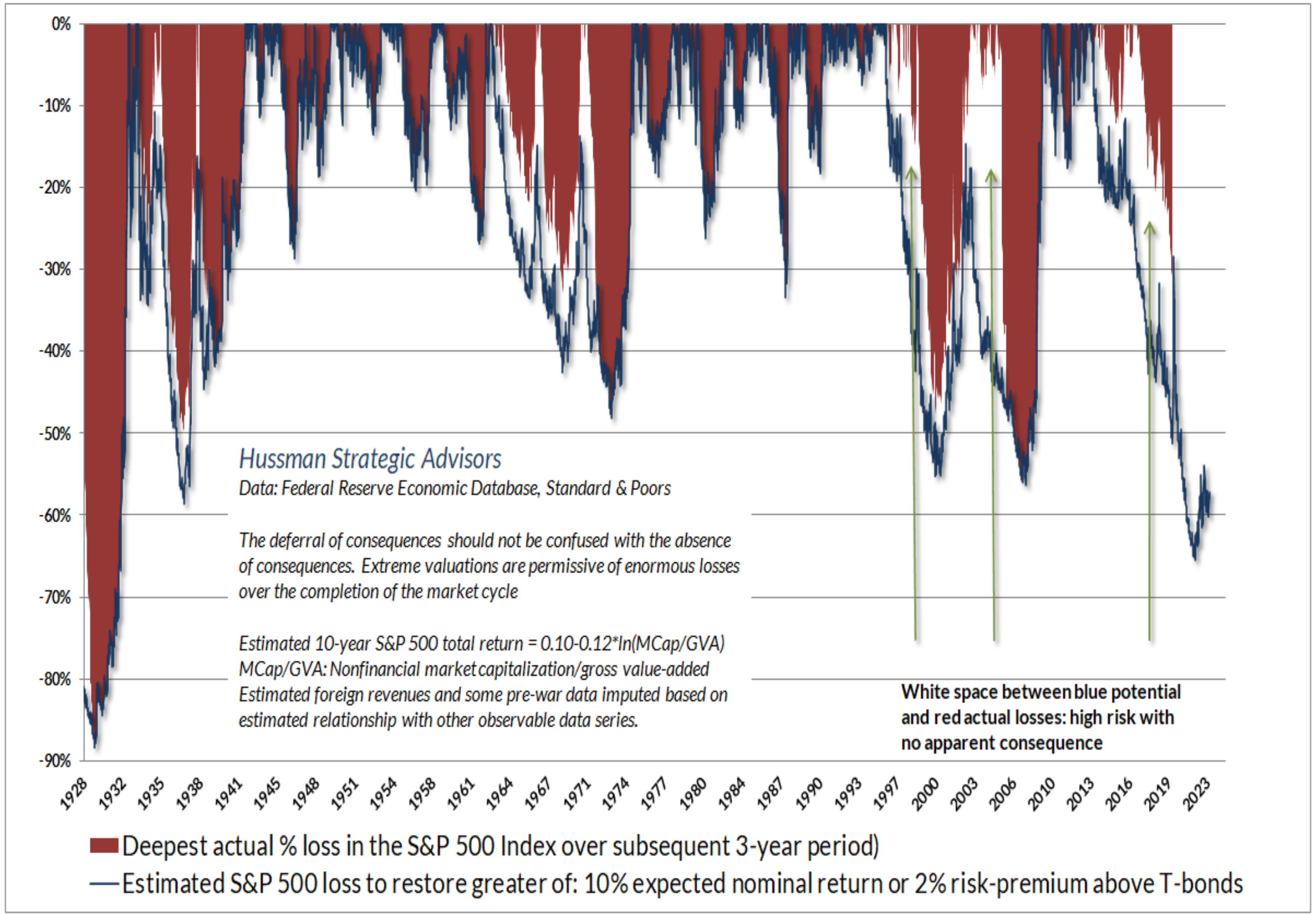
What Now?



Source: St Louis Fed/Hussman Strategic Advisors

“Risk Free” vs. Return

- Modern Portfolio Theory
  - There’s a relationship between “risk free” rates.
- Red Area: S&P 500 drawdowns (1928 – Present)
  - If you expect 10% Nominal returns (or 2% over T-Bonds….
- Blue Lines: Estimated S&P 500 decline to “right” the ratio
  - The COVID-selloff briefly closed the gap.
  - Hussman data indicates potential for a very significant decline assuming current rate environment.



Source: The Daily Shot

Nasdaq-100®: The Index for the 21st Century?

Questions?

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