What I will focus on

- Relation between the current macro scenario and the stagflation of 70s-80s
- Two risks:
  1. Corporate leverage – Financial dominance of the Fed monetary policy?
  2. Government debt – Fiscal dominance of the Fed monetary policy?
- Breakdown of +ve Stock-Treasury Bond correlation during stagflationary periods

What I will skip

Several other important issues:

- Housing markets
- Household balance-sheets
- Coordinated global rate hike cycle
- Impact of sanctions on the USD
- Crypto boom and bust cycle
- Anything else!
Jim Hamilton on Oil Price Shocks
Major historical oil supply disruptions were followed by recessions

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Supply cut (local)</th>
<th>Supply cut (global)</th>
<th>Price Change</th>
<th>Recession Start</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov 73</td>
<td>OAPEC embargo</td>
<td>7%</td>
<td>7%</td>
<td>51%</td>
<td>Dec 73</td>
</tr>
<tr>
<td>Nov 78</td>
<td>Iran revolution</td>
<td>7%</td>
<td>4%</td>
<td>57%</td>
<td>Feb 80</td>
</tr>
<tr>
<td>Oct 80</td>
<td>Iran-Iraq War</td>
<td>6%</td>
<td>4%</td>
<td>45%</td>
<td>Aug 81</td>
</tr>
<tr>
<td>Aug 90</td>
<td>Gulf War I</td>
<td>9%</td>
<td>6%</td>
<td>93%</td>
<td>Aug 90</td>
</tr>
</tbody>
</table>
Decline in auto production made significant contribution to downturns

<table>
<thead>
<tr>
<th>Period</th>
<th>Contribution of autos</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974:Q1-1975:Q1</td>
<td>-0.5%</td>
</tr>
<tr>
<td>1979:Q2-1980:Q2</td>
<td>-0.8%</td>
</tr>
<tr>
<td>1981:Q2-1982:Q2</td>
<td>-0.2%</td>
</tr>
<tr>
<td>1990:Q3-1991:Q3</td>
<td>-0.3%</td>
</tr>
<tr>
<td>2007:Q4-2008:Q4</td>
<td>-0.7%</td>
</tr>
</tbody>
</table>

Source: Hamilton, “Major Historical Oil Shocks,” 2013
Consumers become more pessimistic when oil prices rise.
Stock and Corporate Bond Mkt Corrections
Figure 1: Size of S&P 500 10%+ corrections (%) (Post-war episodes)

Source: Shiller data, Haver, Deutsche Bank Asset Allocation, Deutsche Bank
Very synchronized sell-off in credit so far

Source: Bloomberg, Apollo Chief Economist

APOLLO
Retail investors buying IG and selling HY in recent weeks

High Yield and Investment Grade Corporate Bond ETF shares outstanding

- iShares iBoxx Investment Grade Corporate Bond ETF
- iShares iBoxx High Yield Corporate Bond ETF

Source: Bloomberg, Apollo Chief Economist. Note: Ticker used HYG US Equity and LQD US Equity
Passive IG credit down 16% from its peak

Source: Bloomberg, Apollo Chief Economist. Note: Bloomberg ticker used for the IG credit index: LQD.
80% of the US IG market trading below par

% of bonds trading below par

Source: Bloomberg, Apollo Chief Economist. Note: Data used for members in the LBUSTELUU Index as of 11th May 2022.

APOLLO
Very synchronized sell-off in credit so far

Source: Bloomberg, Apollo Chief Economist
BBB-rated US Corporate Debt: A Ticking Time-Bomb?
Exorbitant Privilege? Quantitative Easing and the Bond Market Subsidy of Prospective Fallen Angels

Viral V. Acharya
NYU Stern, CEPR, ECGI, NBER

Ryan Banerjee
BIS

Matteo Crosignani
New York Fed

Tim Eisert
Erasmus Rotterdam, CEPR

Renée Spigt
Erasmus Rotterdam

NYU Stern
April 1, 2022

The views expressed in this presentation do not necessarily reflect the views of the Federal Reserve Bank of New York, the Federal Reserve System, the Bank for International Settlements, or anyone associated with these institutions.
The boom in the U.S. corporate bond market

- Non-fin. corporate debt is now the largest type of private debt ($17.6T in 2020Q3)
- Credit cycle post-GFC driven by non-financial corporate debt
- U.S. corporate bond market doubled in size in 2009–19
The boom in the BBB corporate bond market

- Non-fin. corporate debt is now the largest type of private debt ($17.6T in 2020Q3)
- Credit cycle post-GFC driven by non-financial corporate debt
- U.S. corporate bond market doubled in size in 2009–19, driven by BBB segment

[Graph showing Corporate Bond Volume by Rating Category]

Source: Capital IQ and Thomson Reuters
BBB market: deteriorating quality and lower yields

- Increasing debt-to-EBITDA ratio for BBB, but not for other IG, firms
- BBB offering spreads declined from 400 bps in 2009 to 105 bps in 2018, moving closer to AA and A spreads (no narrowing between A and AA spreads)

Source: Compustat and Thomson Reuters

Source: Mergent and Thomson Reuters
Policy makers wary of risk posed by rise in corporate leverage

“Nonfinancial corporations entered this [Covid] crisis with enormous debt loads, and that is a vulnerability. They had borrowed excessively. The borrowing spree happened because regulators had “few, if any tools to rein it in and because low interest rates made it easier for companies to borrow.”

Janet Yellen, March 2020
Downgrade materialization during COVID

- Large price drop of IG corporate bonds at the onset of the COVID-19 (Haddad et al., 2021; Boyarchenko et al., 2021; Altman, 2020a; Acharya and Steffen, 2021)

- Including bonds from fallen angels Ford Motor and Macy’s:

“The Federal Reserve is throwing a lifeline to some companies that have suddenly dropped into risky junk debt after expanding its corporate bond buying program to include fallen angels [...] Bonds of Ford Motor and Macy’s will be eligible for the program.” Bloomberg, 4/9/20
Stock and Treasury Return Correlations: Stagflation versus “Normal” times

(Joint work with Toomas Laarits, NYU Stern)
Daily returns

30-day rolling lookback windows

CRSP value weighted index return

5-year Treasury Bond returns based on Gurkaynack Sack and Wright fitted yield curve
Daily returns

30-day rolling lookback windows

CRSP value weighted index return

10-year Treasury Bond returns based on Gurkaynack Sack and Wright fitted yield curve
corr_n30

Daily returns
30-day rolling lookback windows
CRSP value weighted index return
30-year Treasury Bond returns based on Gurkaynack Sack and Wright fitted yield curve
Fingers crossed... Thank you! 😊