Global economic, inflation, and market outlook

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NDR
NED DAVIS RESEARCH

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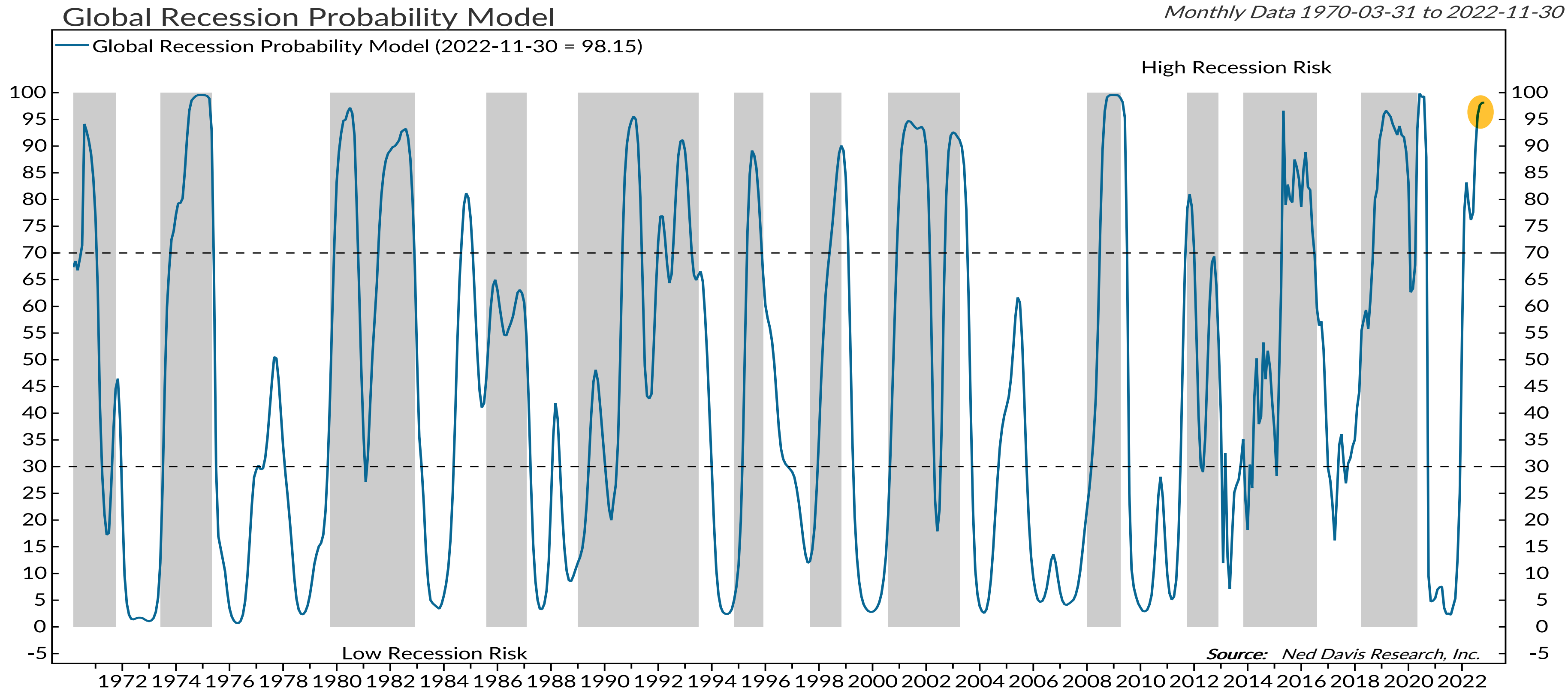
Overview

Global Global economy is in a sustained slowdown.



Shaded Areas Represent OECD-Defined Global Slowdown Periods

Analysis Dates: 1970-03-31 - 2022-11-30		
	Actual:	
Probability Model	Recession (% of Time)	No Recession (% of Time)
Above 70	85.16	14.84
Between 30 and 70	58.21	41.79
Below 30	15.20	84.80

IE90

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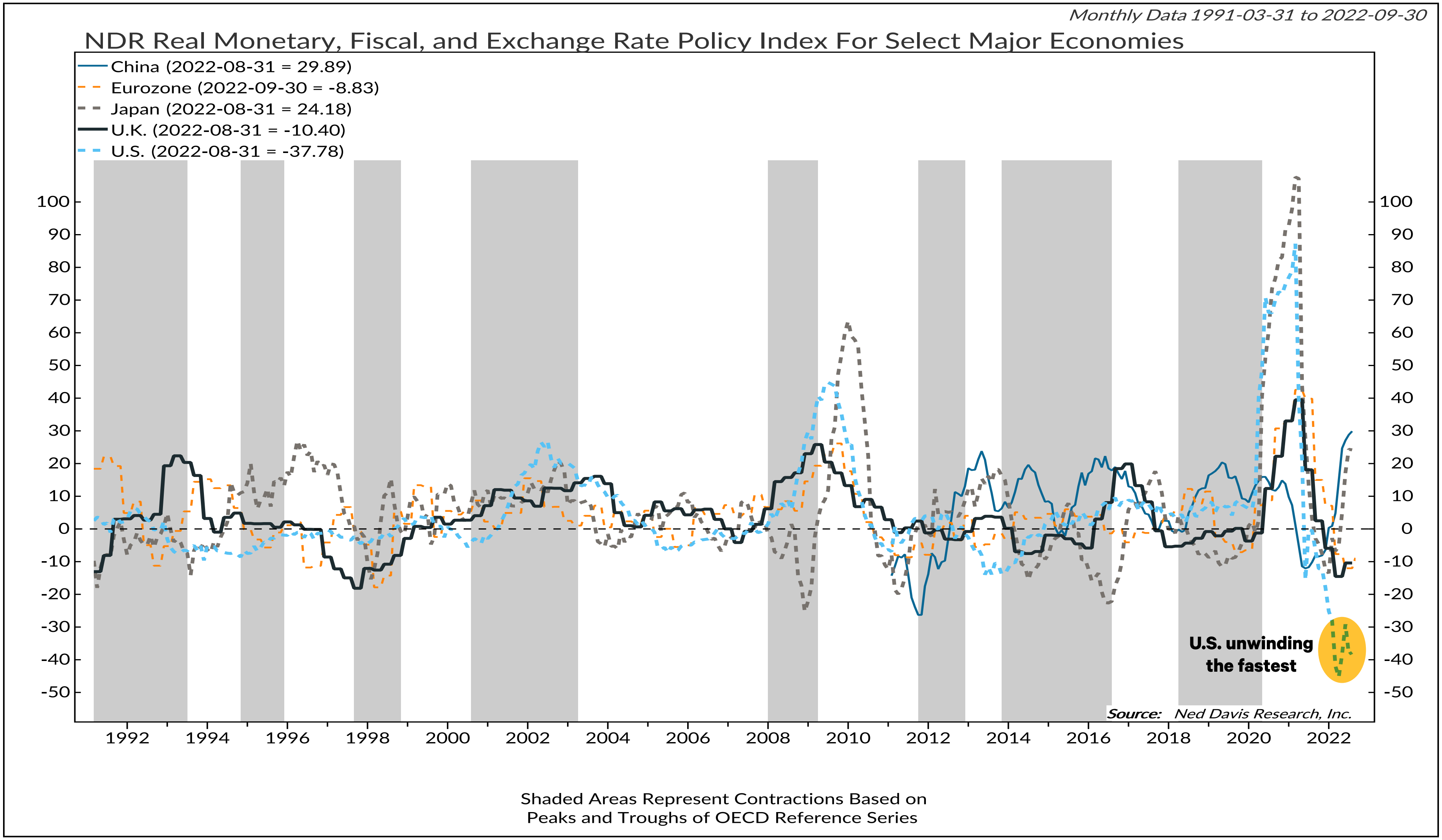
Monetary and fiscal support is fading rapidly almost everywhere.



IE591

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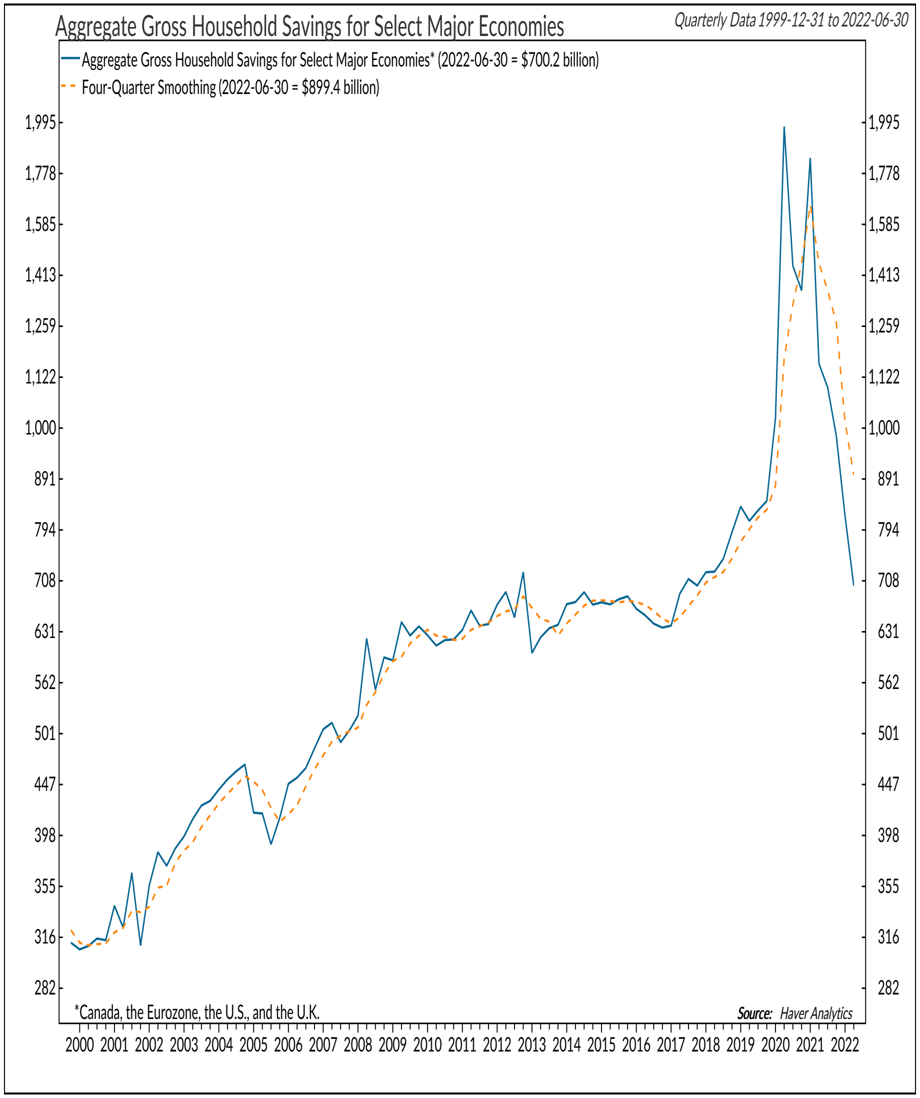
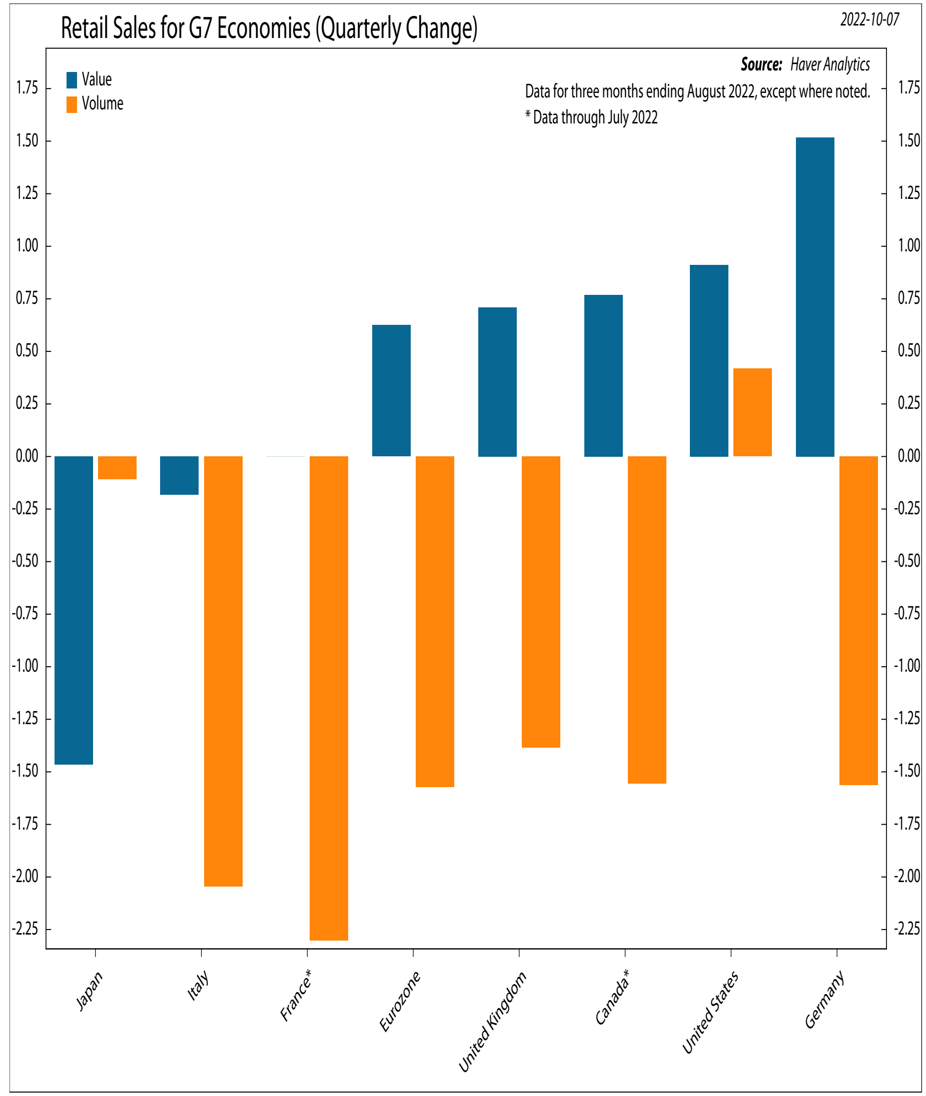
Savings still strong, but real spending is falling.



IE121



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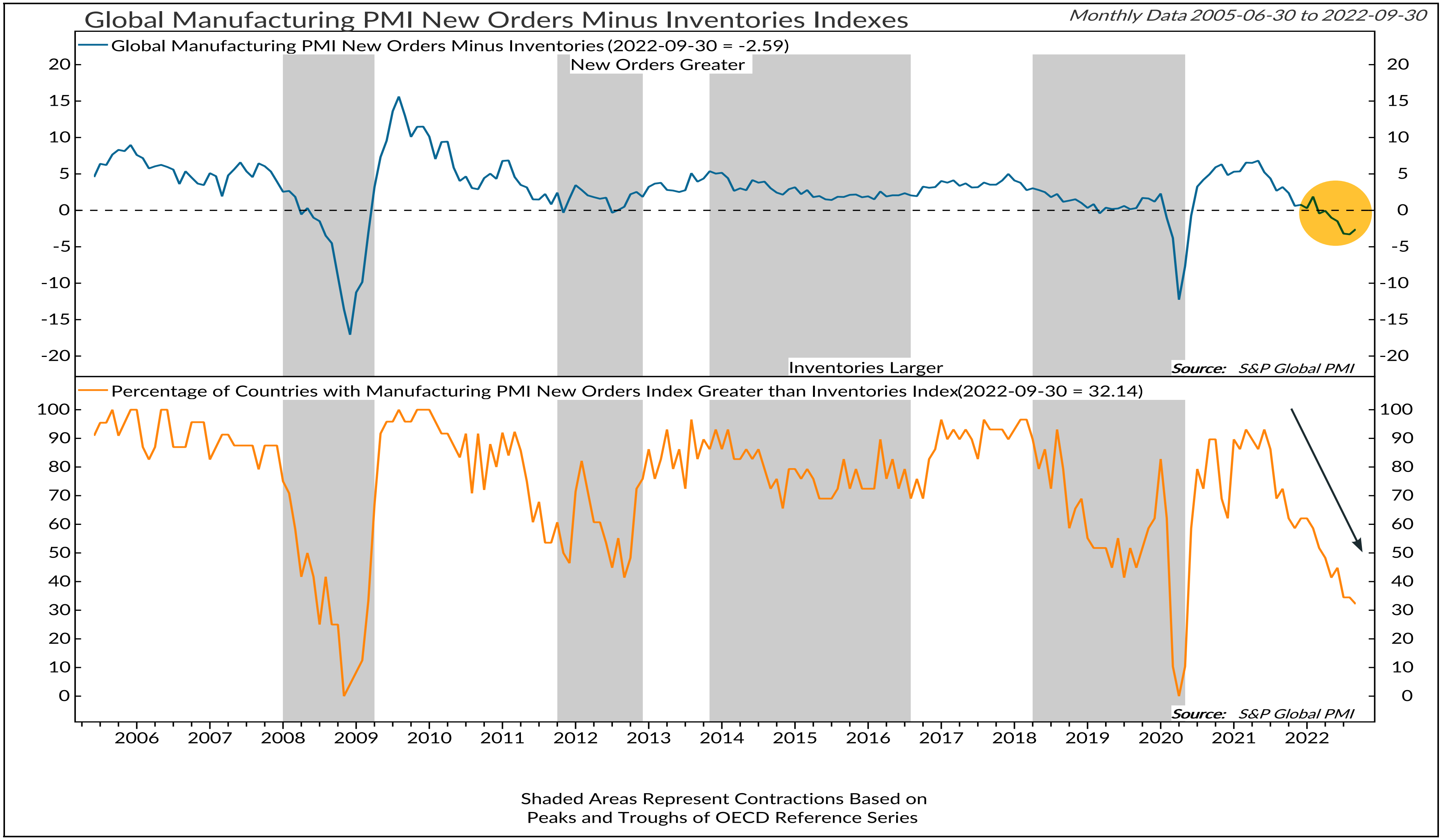
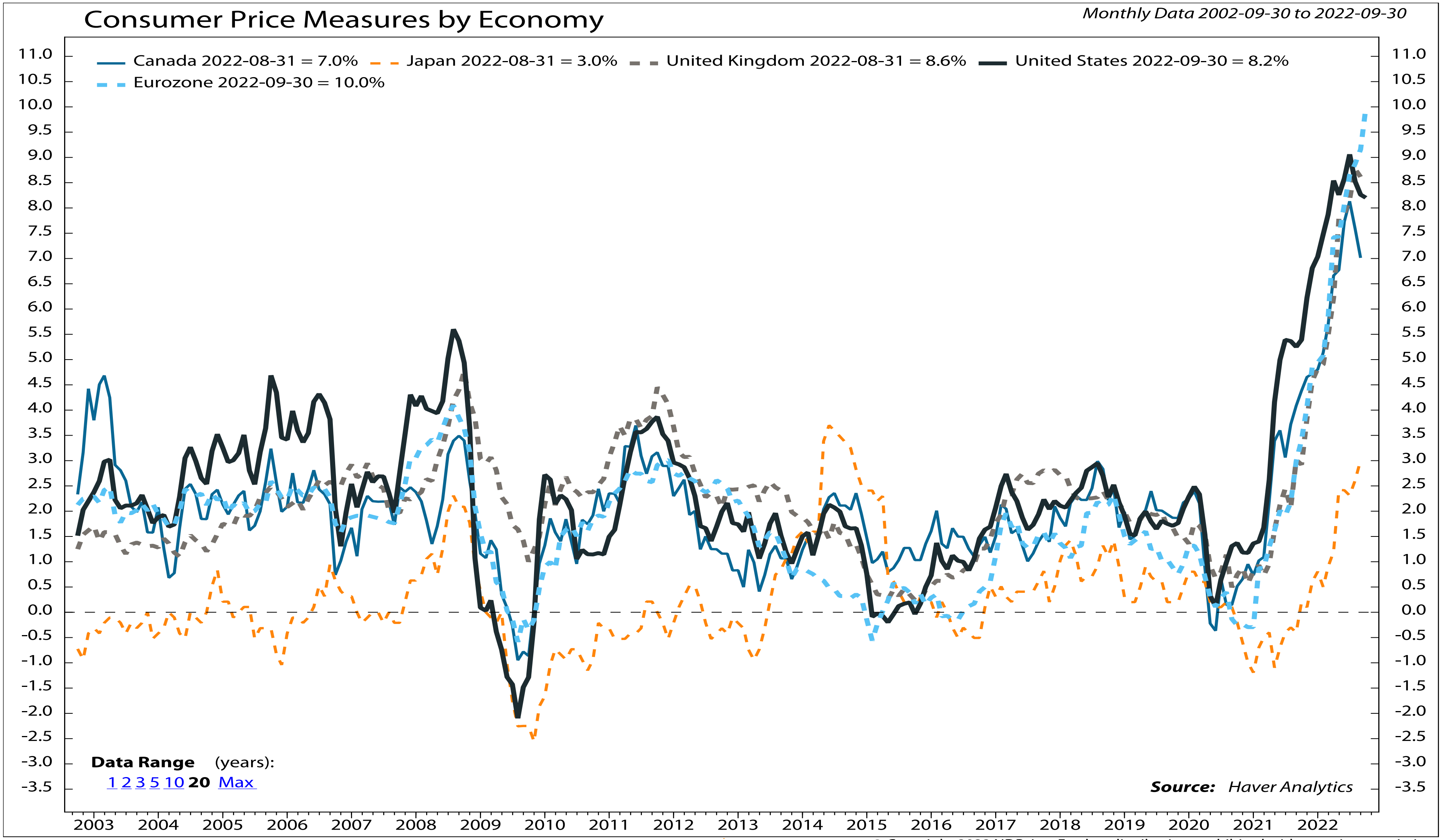
Global bullwhip has led to excessive inventories.



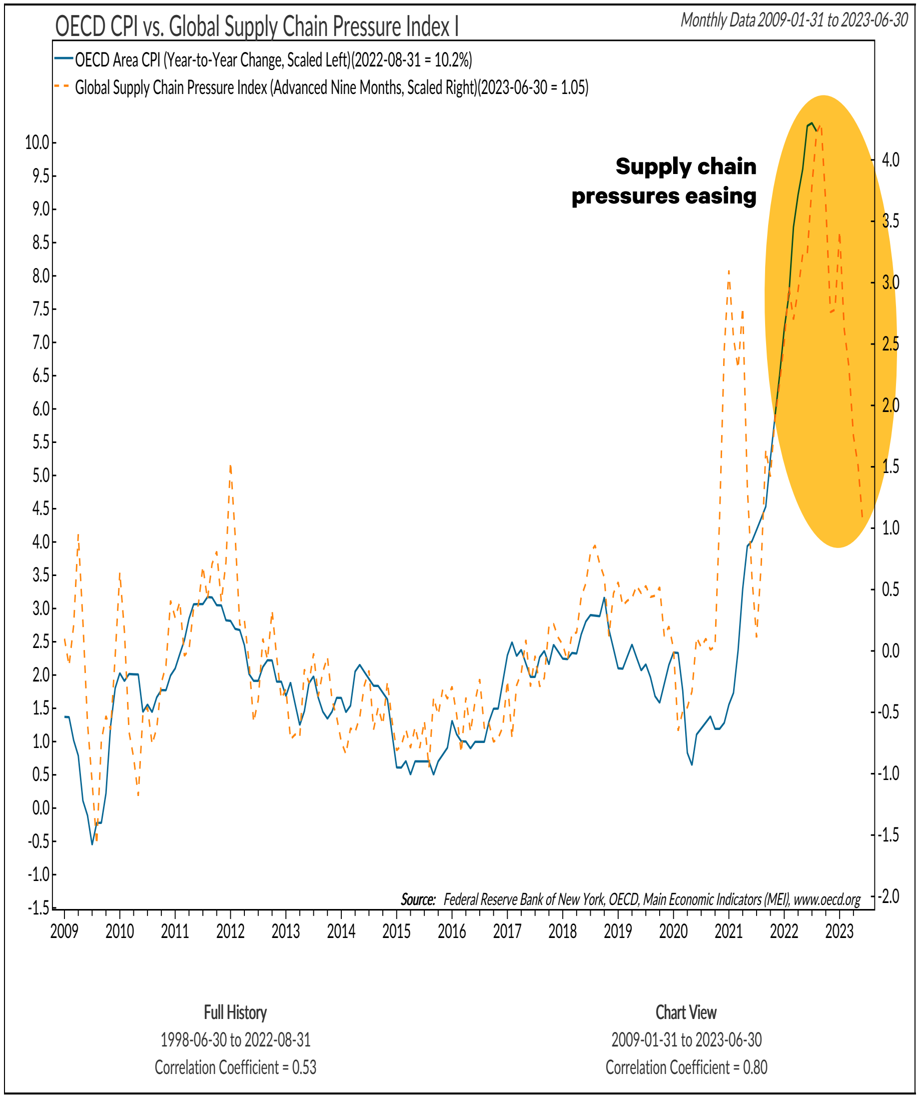
IE252

Inflation Remains persistently high.

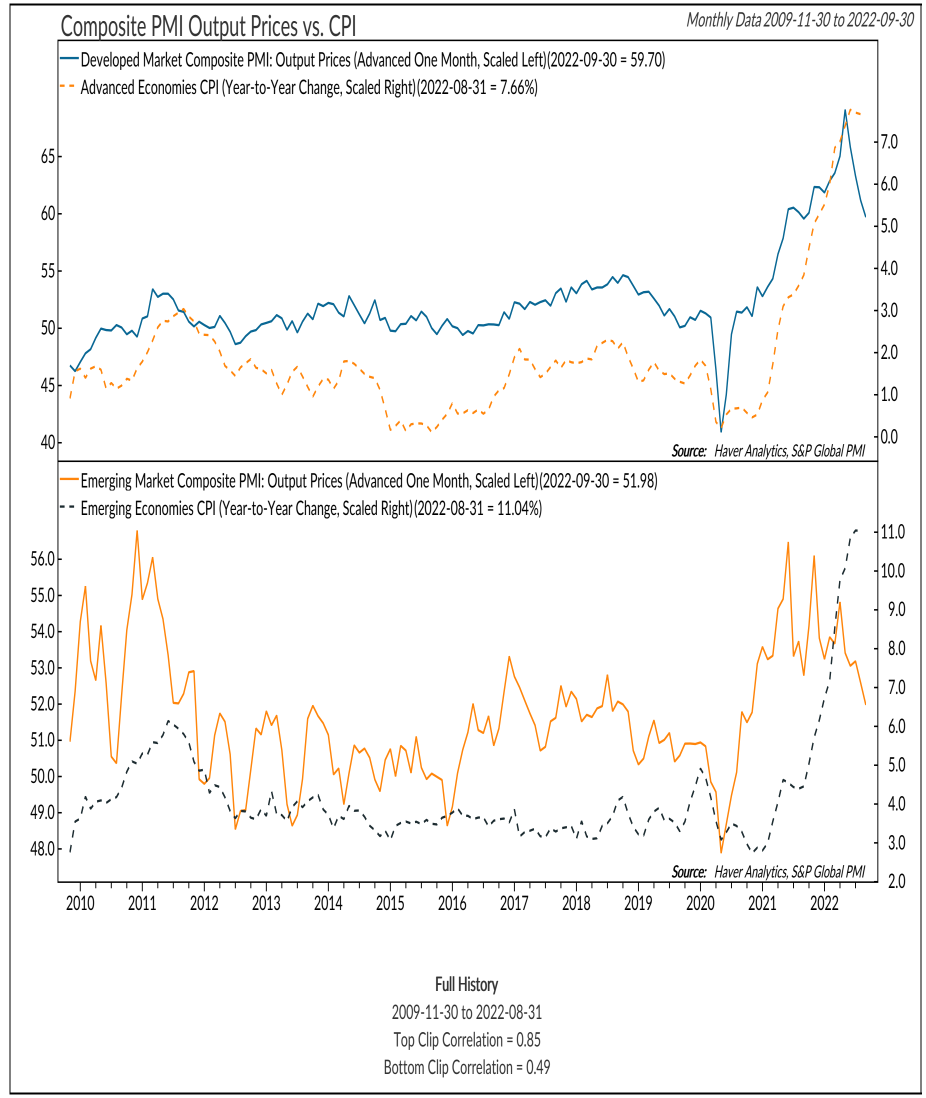


ICS_203.RPT

There may be some signs of reprieve.

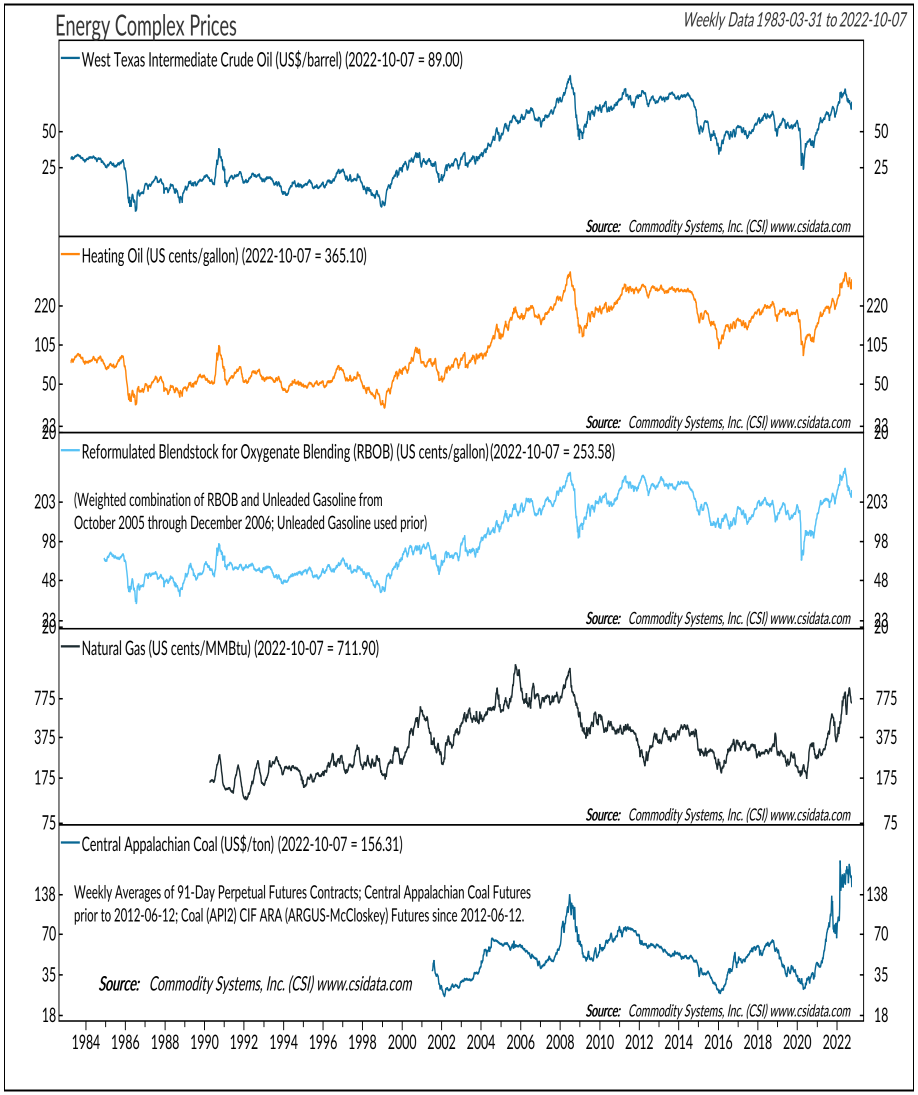


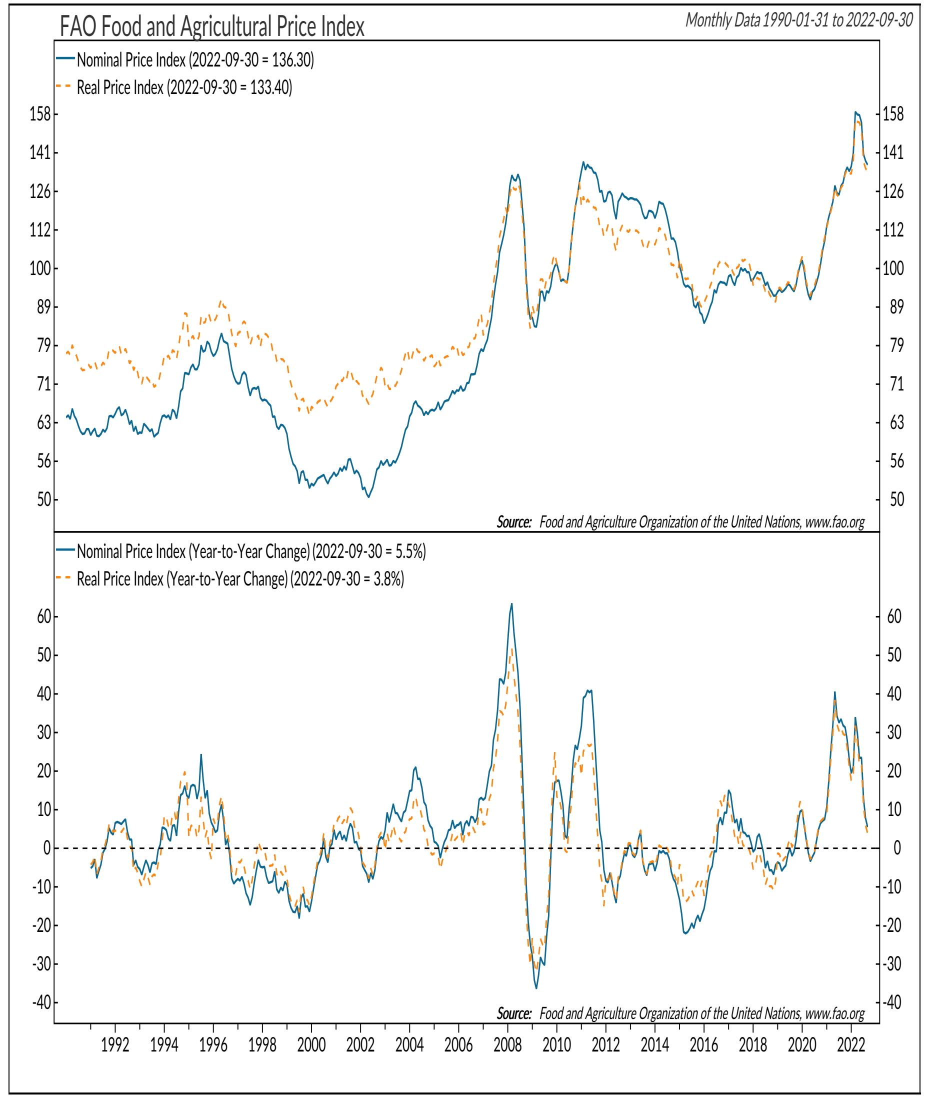
IE770



IE252G

Food and energy prices have also peaked... but remain elevated.





Inflation targets won't be met anytime soon.

E976A

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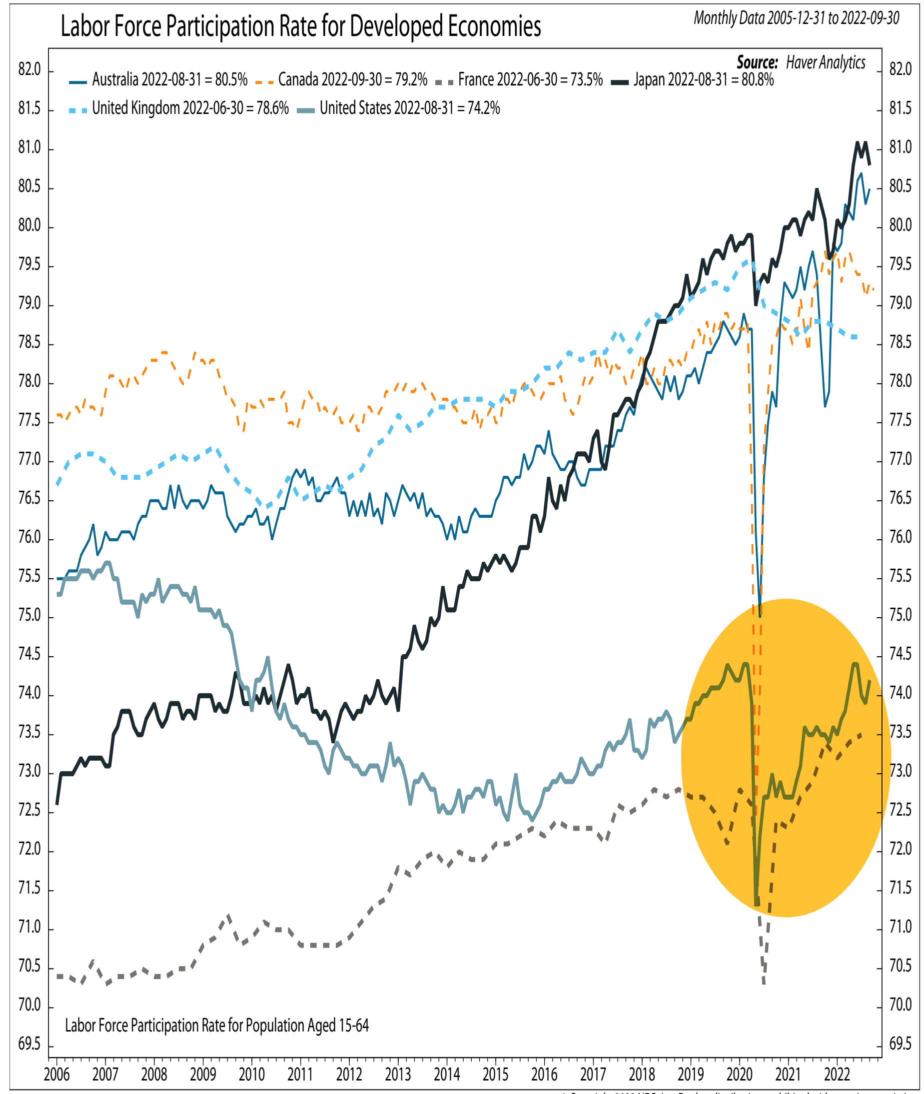

IE105

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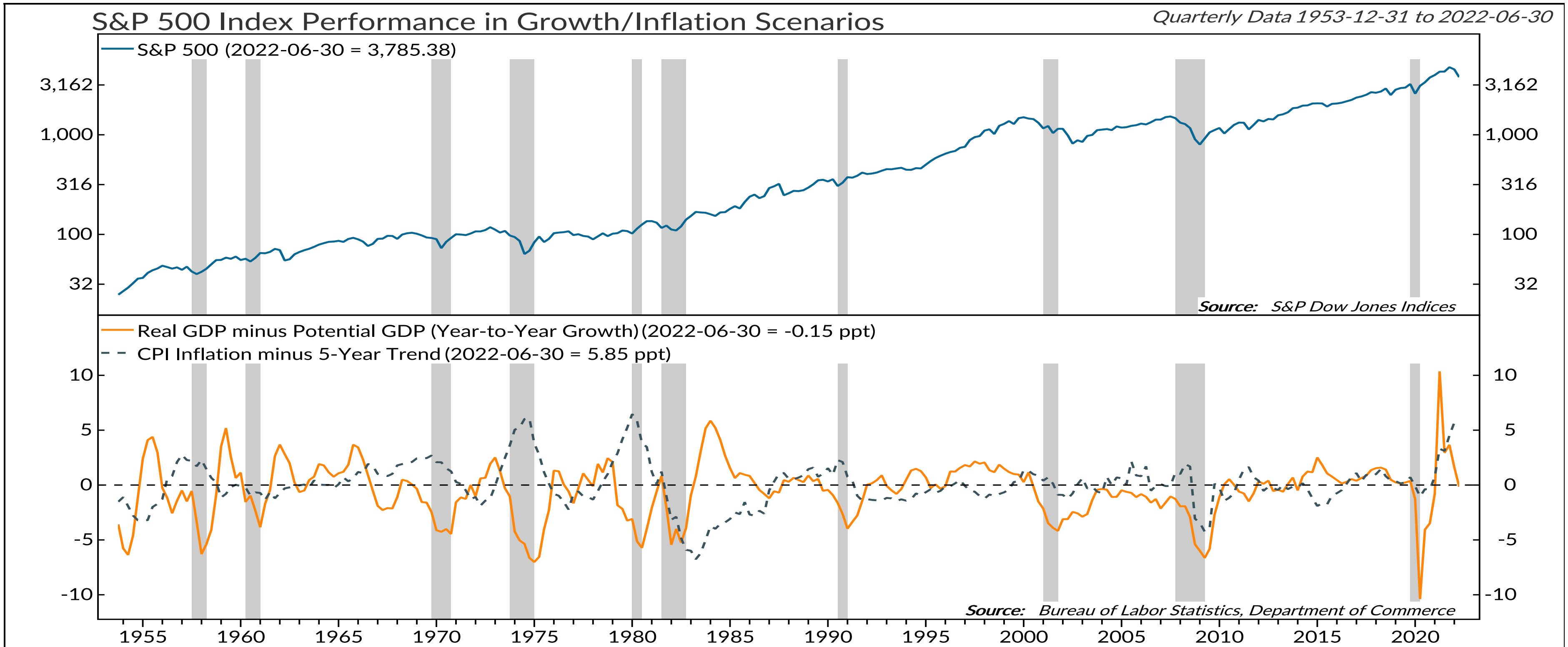
Are secular disinflationary forces still intact?

Secular Disinflationary Forces

1	Technology
2	Globalization/Competition ?
3	High private debt
4	Demographics
5	Well-anchored inflation expectations ?
6	Rising inequality

Central banks Want to avoid a perpetual stagflation scenario.



Shading indicates NBER-defined recessions.

Non-Recessionary Scenarios:
Overheating = GDP above trend, Inflation more than 1 ppt above trend
Strong Growth/Low Inflation = GDP above trend, Inflation less than 1ppt above trend
Slow Growth/Low Inflation = GDP below trend, Inflation less than 1 ppt above trend
Stagflation = GDP below trend, Inflation more than 1 ppt above trend

S&P 500 Performance
Full History: 1953-12-31 to 2022-06-30

Economic Scenario	% Gain/ Annum	% of Time
Overheating	3.31	7.30
Strong Growth/Low Inflation	11.25	39.07
Slow Growth/Low Inflation	7.94	27.00
Stagflation	-7.33	9.13
Recession	9.35	17.50

Buy/Hold = 7.61% Gain/Annum

E100E

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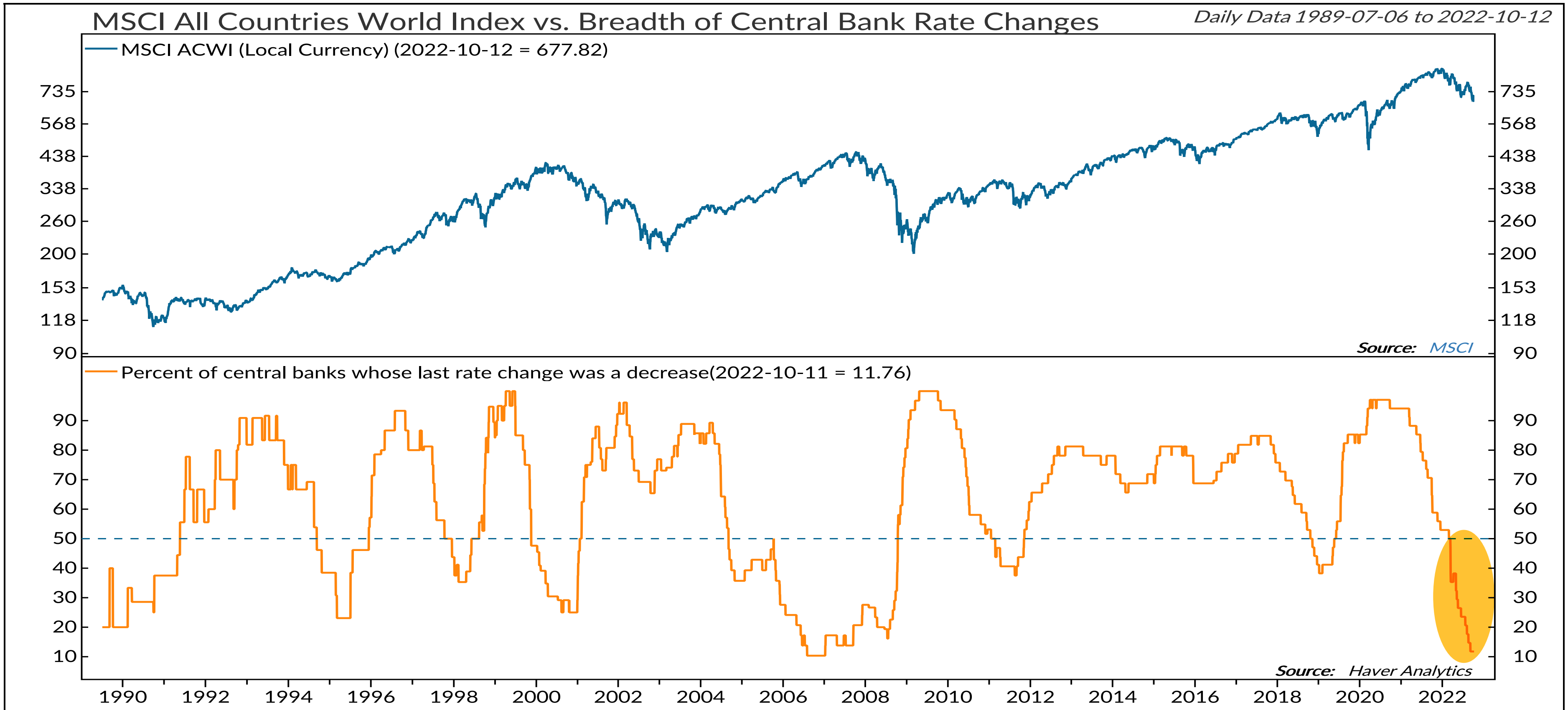
Central banks engaging in most broad-based tightening since GFC.



ACWI Performance		
Full History: 1989-07-06 to 2022-10-11		
Share of Central Banks Easing is	% Gain/ Annum	% of Time
Above 50.0	8.38	67.02
Below 50.0	-1.80	32.98
Buy/Hold = 4.91% Gain/Annum		

IE509K

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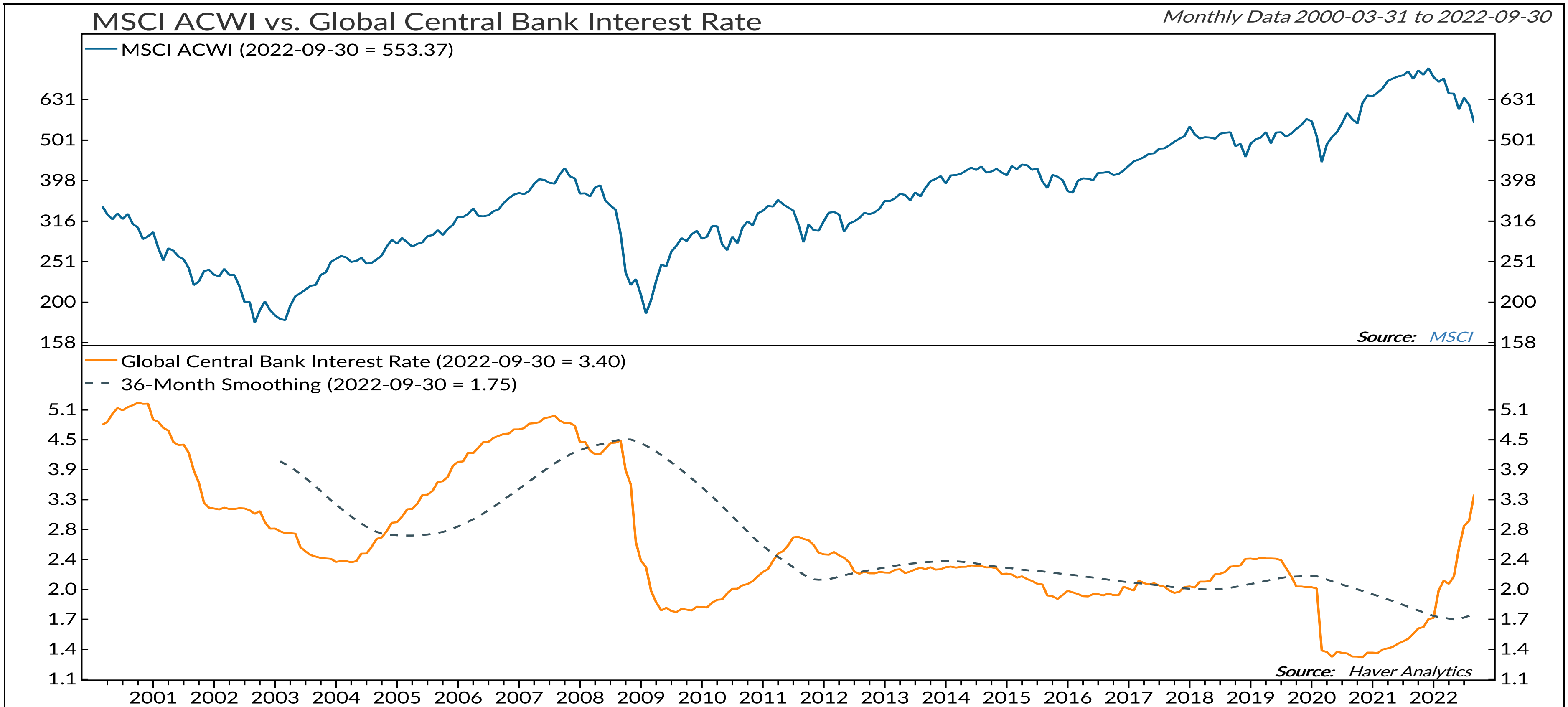
Speed also matters.



MSCI ACWI Performance **Full History:** 2000-03-31 to 2022-09-30		
Global Central Bank Interest Rate is	% Gain/ Annum	% of Time
Above 36-Month Moving Average	0.67	37.48
Below 36-Month Moving Average	9.09	62.52
Buy/Hold = 2.13% Gain/Annum		

IE509Q

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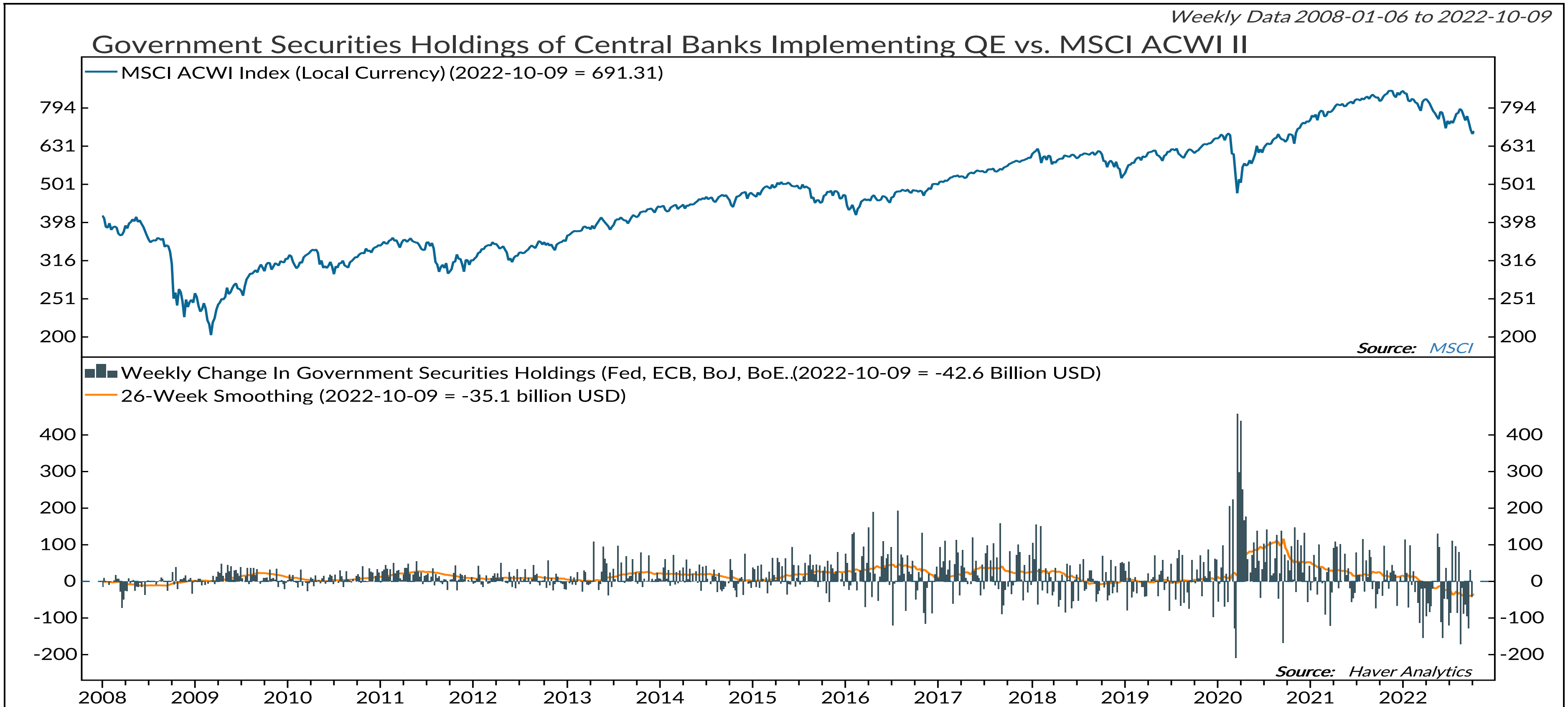
QT also presents downside risks.



MSCI ACWI Performance **Full History:** 2003-06-22 to 2022-10-09		
Smoothed Central Bank Gov't Security Holdings	% Gain/ Annum	% of Time
Growing	10.12	79.15
Contracting	-10.86	20.85
Buy/Hold = 5.38% Gain/Annum		

MSCI ACWI Performance **Chart View:** 2008-01-06 to 2022-10-09		
Smoothed Central Bank Gov't Security Holdings	% Gain/ Annum	% of Time
Growing	11.29	85.19
Contracting	-31.76	14.81
Buy/Hold = 3.51% Gain/Annum		

IE516K

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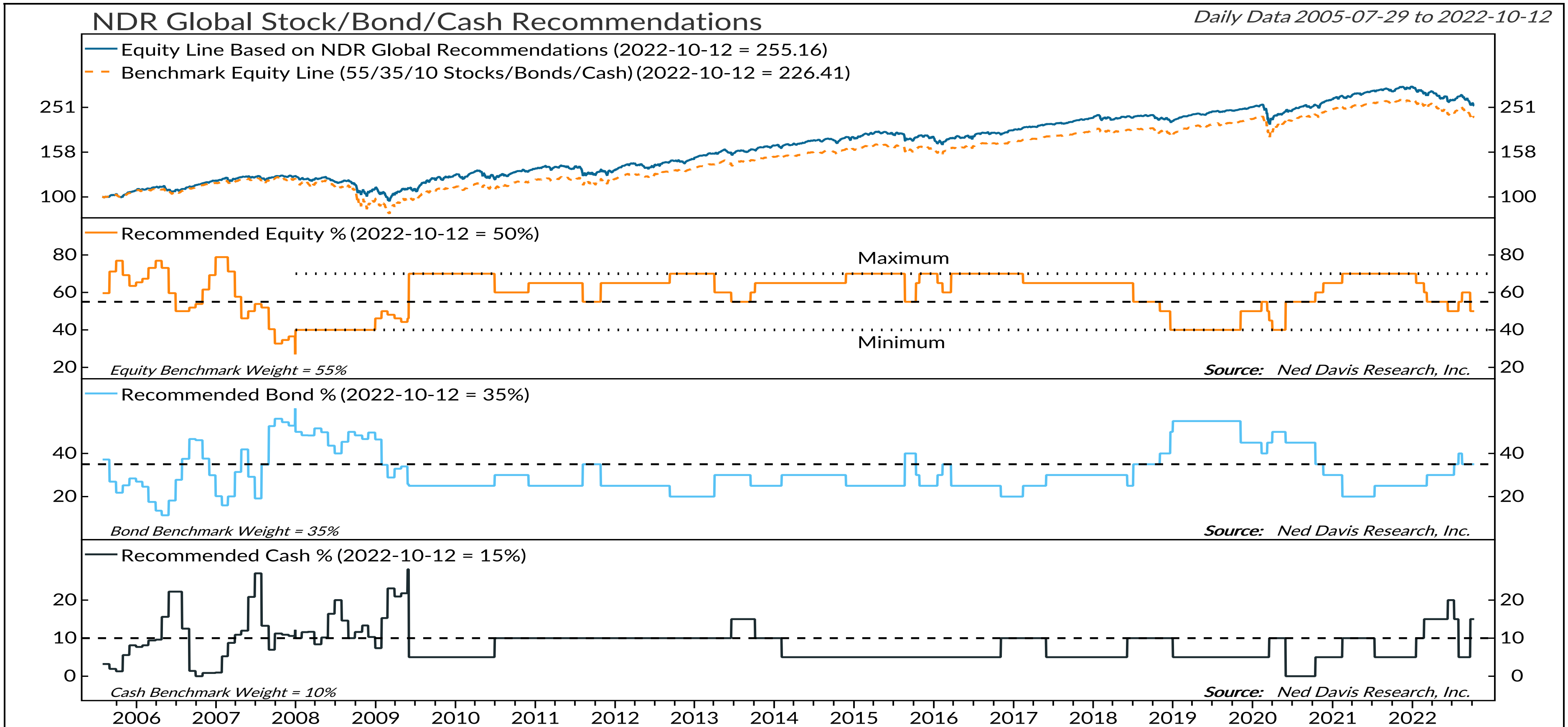
Asset Allocation Underweight equities.

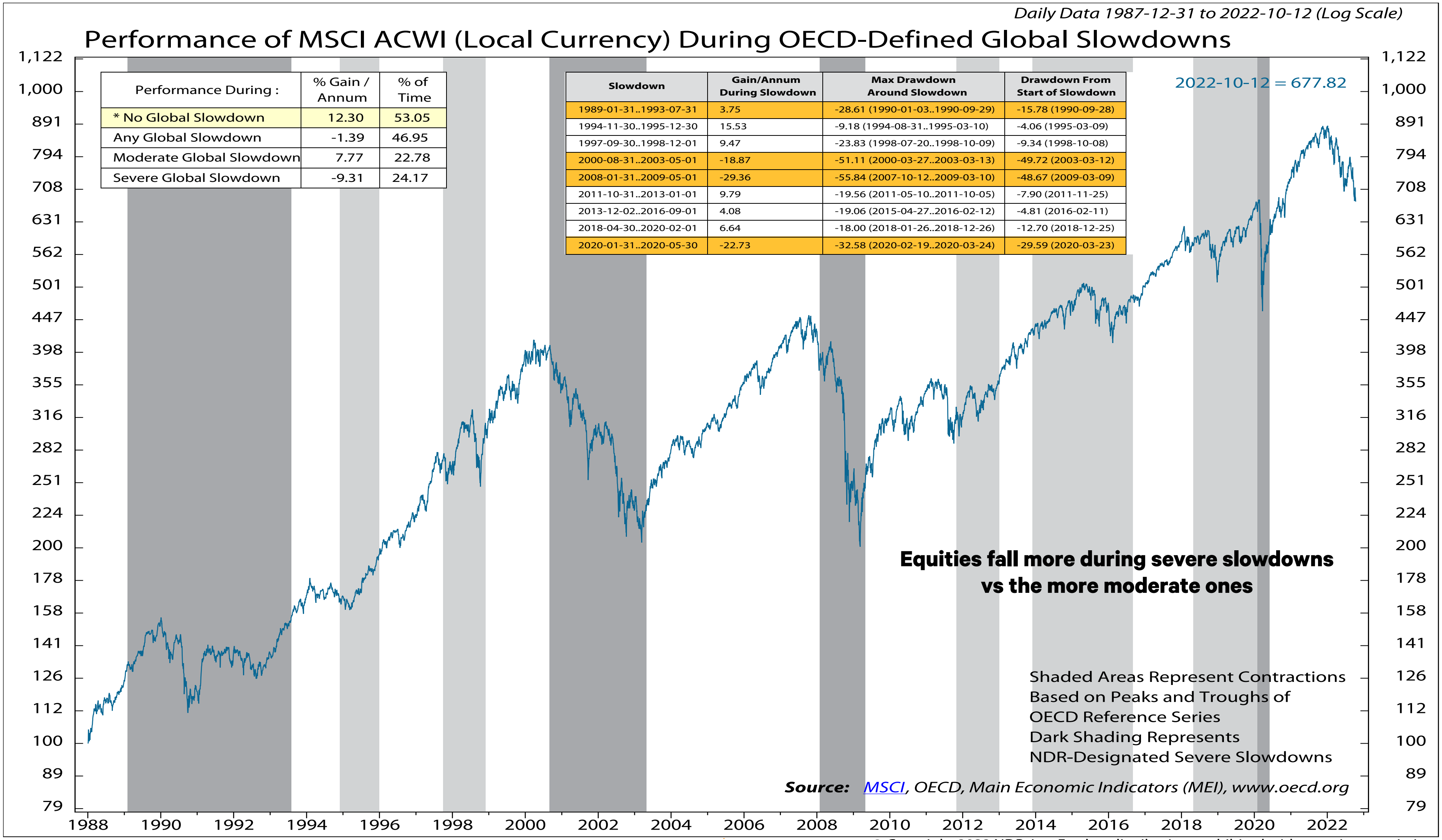


Allocation recommendations follow I4000 prior to 2008 and I04000 from 2008-01-01 to 2009-06-04.
For more details click here.
Minimum and Maximum Equity Allocations starting from 2008-01-01.

Strategy vs. Benchmark Returns Full History: 2005-07-29 - 2022-10-12	
Equity Line	Gain/Annum
Recommendations	5.6%
Benchmark	4.9%

I4001A

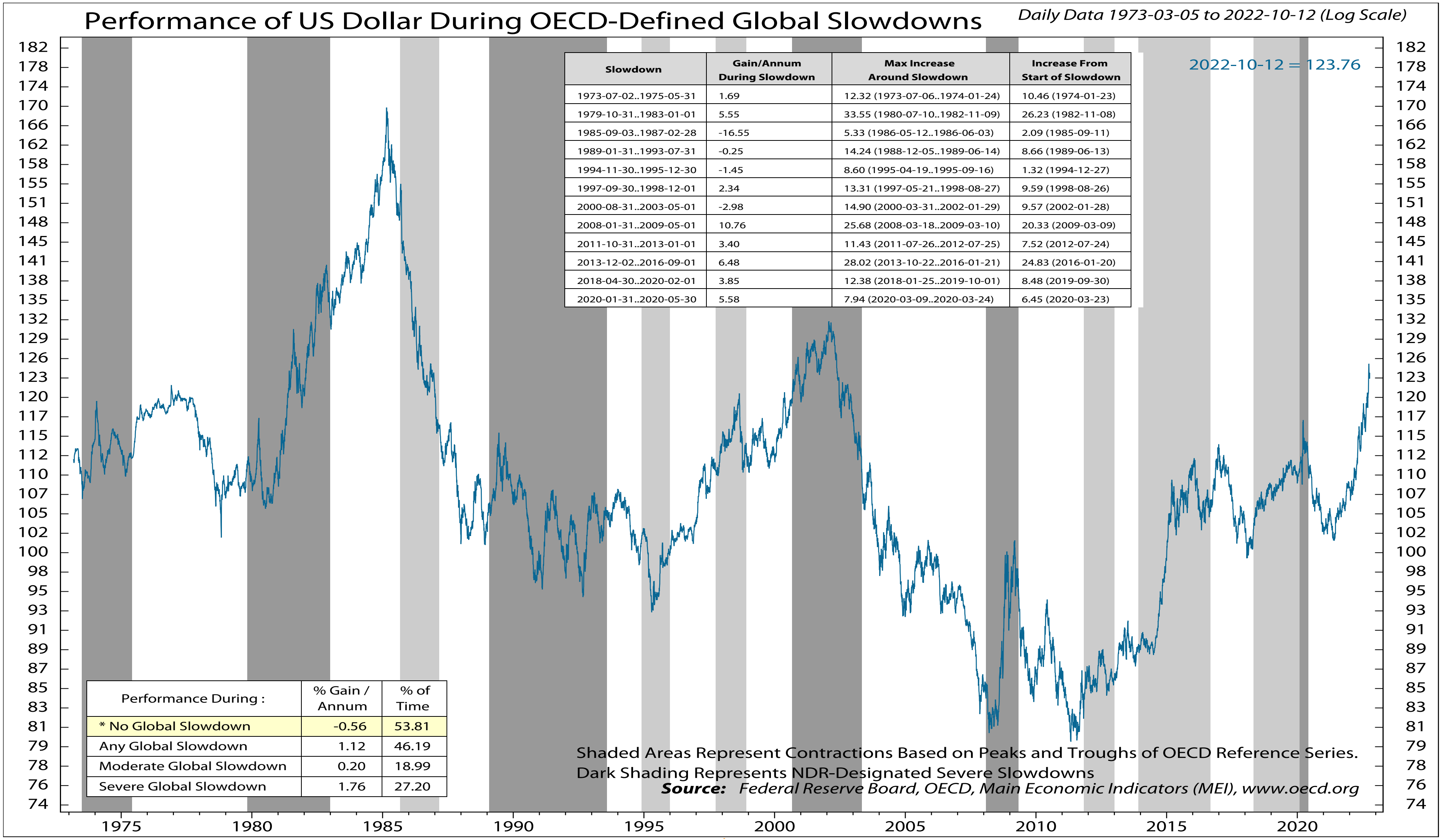
Global slowdowns almost always associated with equity bear markets.



IE70

NDR

The dollar tends to rise during global slowdowns.

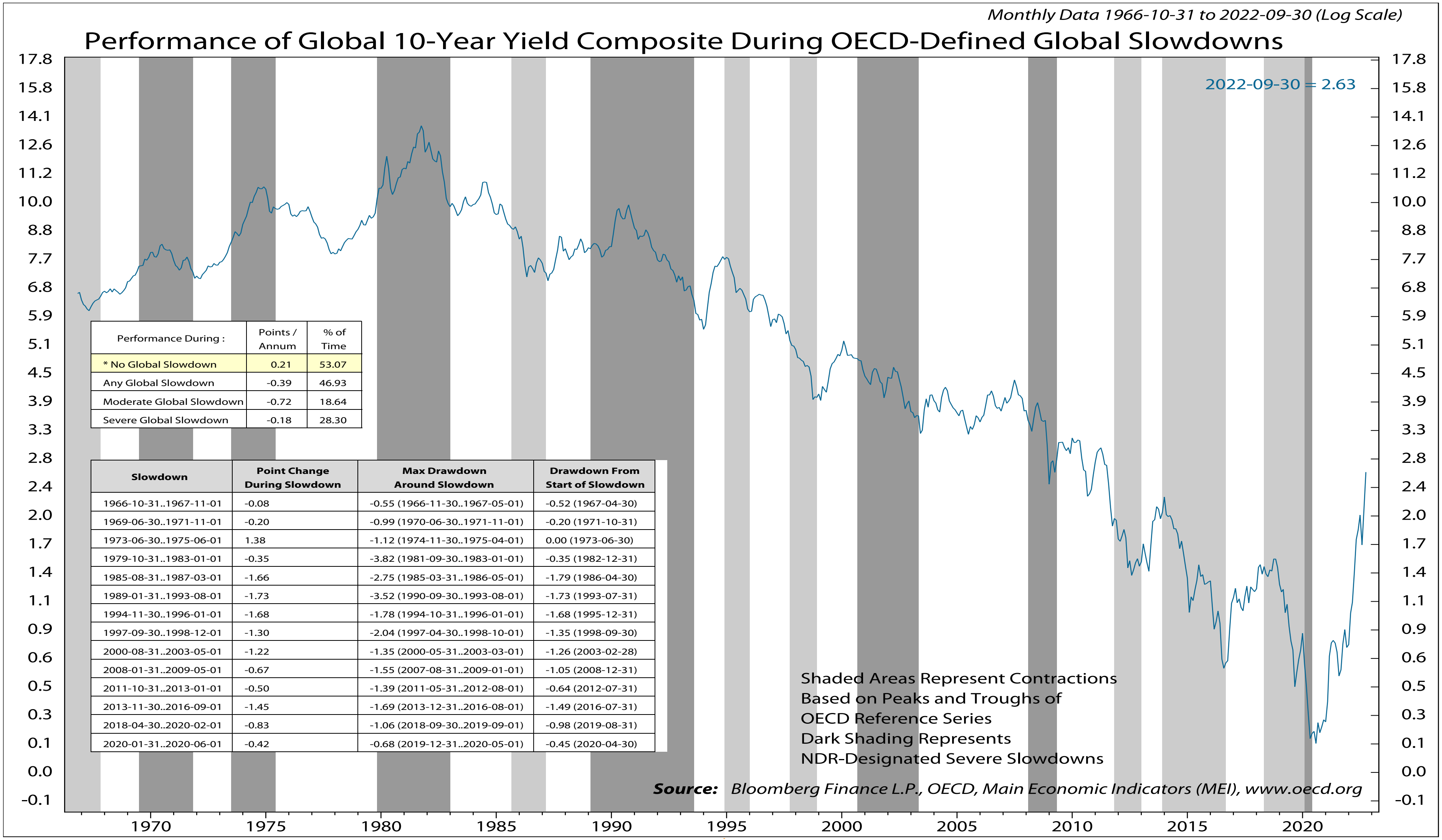


Slowdown	Gain/Annum During Slowdown	Max Increase Around Slowdown	Increase From Start of Slowdown
1973-07-02..1975-05-31	1.69	12.32 (1973-07-06..1974-01-24)	10.46 (1974-01-23)
1979-10-31..1983-01-01	5.55	33.55 (1980-07-10..1982-11-09)	26.23 (1982-11-08)
1985-09-03..1987-02-28	-16.55	5.33 (1986-05-12..1986-06-03)	2.09 (1985-09-11)
1989-01-31..1993-07-31	-0.25	14.24 (1988-12-05..1989-06-14)	8.66 (1989-06-13)
1994-11-30..1995-12-30	-1.45	8.60 (1995-04-19..1995-09-16)	1.32 (1994-12-27)
1997-09-30..1998-12-01	2.34	13.31 (1997-05-21..1998-08-27)	9.59 (1998-08-26)
2000-08-31..2003-05-01	-2.98	14.90 (2000-03-31..2002-01-29)	9.57 (2002-01-28)
2008-01-31..2009-05-01	10.76	25.68 (2008-03-18..2009-03-10)	20.33 (2009-03-09)
2011-10-31..2013-01-01	3.40	11.43 (2011-07-26..2012-07-25)	7.52 (2012-07-24)
2013-12-02..2016-09-01	6.48	28.02 (2013-10-22..2016-01-21)	24.83 (2016-01-20)
2018-04-30..2020-02-01	3.85	12.38 (2018-01-25..2019-10-01)	8.48 (2019-09-30)
2020-01-31..2020-05-30	5.58	7.94 (2020-03-09..2020-03-24)	6.45 (2020-03-23)

Performance During :	% Gain / Annum	% of Time
* No Global Slowdown	-0.56	53.81
Any Global Slowdown	1.12	46.19
Moderate Global Slowdown	0.20	18.99
Severe Global Slowdown	1.76	27.20

IE70G

10 year rises in early part of slowdown, then falls.



Performance During :	Points / Annum	% of Time
* No Global Slowdown	0.21	53.07
Any Global Slowdown	-0.39	46.93
Moderate Global Slowdown	-0.72	18.64
Severe Global Slowdown	-0.18	28.30

Slowdown	Point Change During Slowdown	Max Drawdown Around Slowdown	Drawdown From Start of Slowdown
1966-10-31..1967-11-01	-0.08	-0.55 (1966-11-30..1967-05-01)	-0.52 (1967-04-30)
1969-06-30..1971-11-01	-0.20	-0.99 (1970-06-30..1971-11-01)	-0.20 (1971-10-31)
1973-06-30..1975-06-01	1.38	-1.12 (1974-11-30..1975-04-01)	0.00 (1973-06-30)
1979-10-31..1983-01-01	-0.35	-3.82 (1981-09-30..1983-01-01)	-0.35 (1982-12-31)
1985-08-31..1987-03-01	-1.66	-2.75 (1985-03-31..1986-05-01)	-1.79 (1986-04-30)
1989-01-31..1993-08-01	-1.73	-3.52 (1990-09-30..1993-08-01)	-1.73 (1993-07-31)
1994-11-30..1996-01-01	-1.68	-1.78 (1994-10-31..1996-01-01)	-1.68 (1995-12-31)
1997-09-30..1998-12-01	-1.30	-2.04 (1997-04-30..1998-10-01)	-1.35 (1998-09-30)
2000-08-31..2003-05-01	-1.22	-1.35 (2000-05-31..2003-03-01)	-1.26 (2003-02-28)
2008-01-31..2009-05-01	-0.67	-1.55 (2007-08-31..2009-01-01)	-1.05 (2008-12-31)
2011-10-31..2013-01-01	-0.50	-1.39 (2011-05-31..2012-08-01)	-0.64 (2012-07-31)
2013-11-30..2016-09-01	-1.45	-1.69 (2013-12-31..2016-08-01)	-1.49 (2016-07-31)
2018-04-30..2020-02-01	-0.83	-1.06 (2018-09-30..2019-09-01)	-0.98 (2019-08-31)
2020-01-31..2020-06-01	-0.42	-0.68 (2019-12-31..2020-05-01)	-0.45 (2020-04-30)

IE70D

Weight of the evidence points to moderate slowdown, but severe recession risk is rising.

- **Report:** ICS_260A.RPT
- **Run Date:** 2022-09-30

Watch Report Summary

4 of 11 indicators are indicating a severe recession

Report Notes:

Source: Haver Analytics, Ned Davis Research, Inc., OECD, Main Economic Indicators (MEI), www.oecd.org, S&P Global PMI

Indicators which have fallen below their key severe recession level are highlighted red.

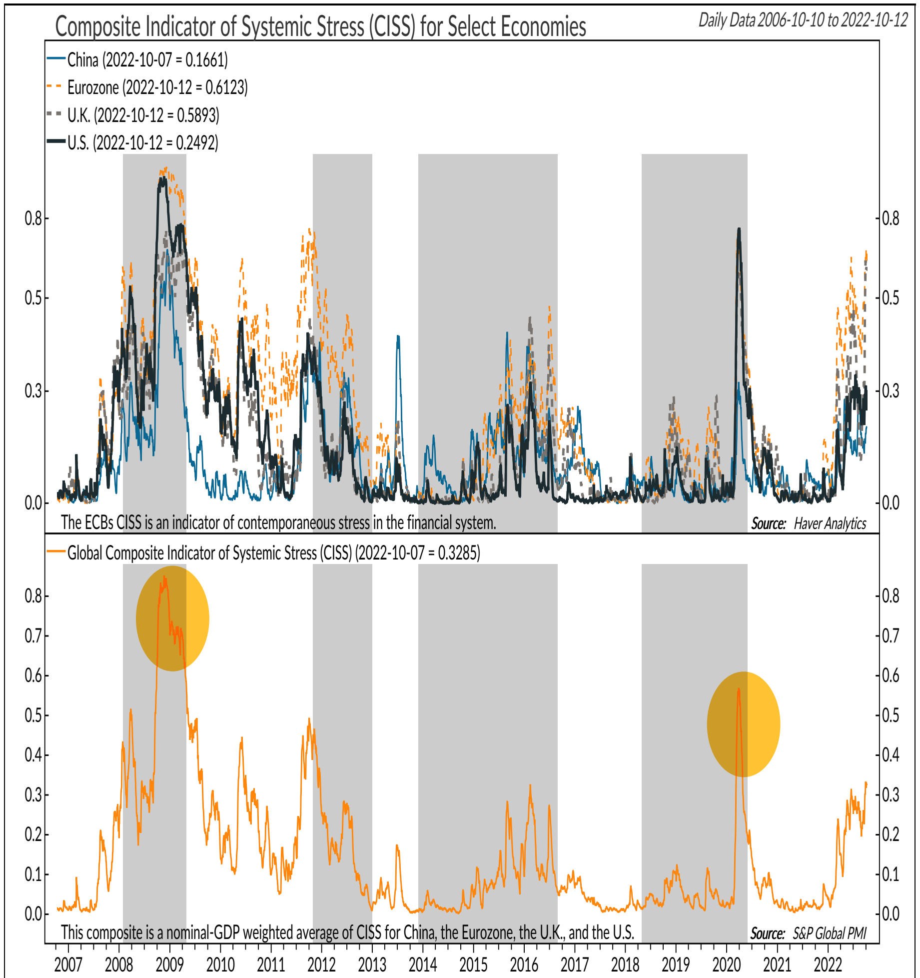
[1]A rise in this indicator indicates an increased probability of recession.

[2]This indicator must be past the key recession level for three consecutive months to indicate an increased probability of recession

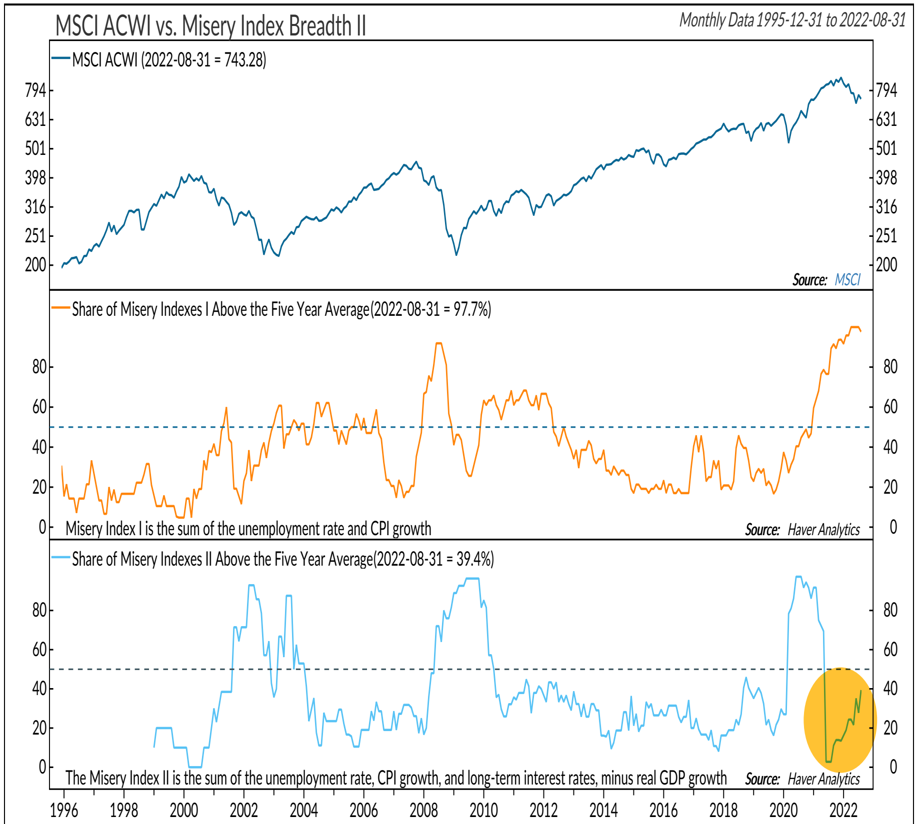
Key Levels

Indicator	Reading
Global Recession Probability Model[1]	0.7 98.1 98.0 99.8
OECD Plus Non-Member Economies Composite Leading Indicator	89.8 98.7 98.9 104.8
Share of OECD CLIs Above 100[2]	0.0 17.6 28.0 100.0
Global Manufacturing PMI	33.8 47.8 49.8 57.6
Share of Manufacturing PMIs Above 50[2]	0.0 33.0 37.1 100.0
World Trade Volume (Smoothed Year-to-Year % Change)	-18.4 0.0 5.5 21.3
Sentix Economic Expectations Index	-36.2 -23.7 -18.0 37.7
Misery Breadth Index II[1]	0.0 39.4 50.0 97.2
Global PMI Bullwhip	-17.1 -2.6 -0.5 15.6
U.S. Recession Probability Model[1]	0.0 2.1 50.0 99.9
Global CISS[1]	0.01 0.30 0.55 0.83

Watching financial conditions and misery.



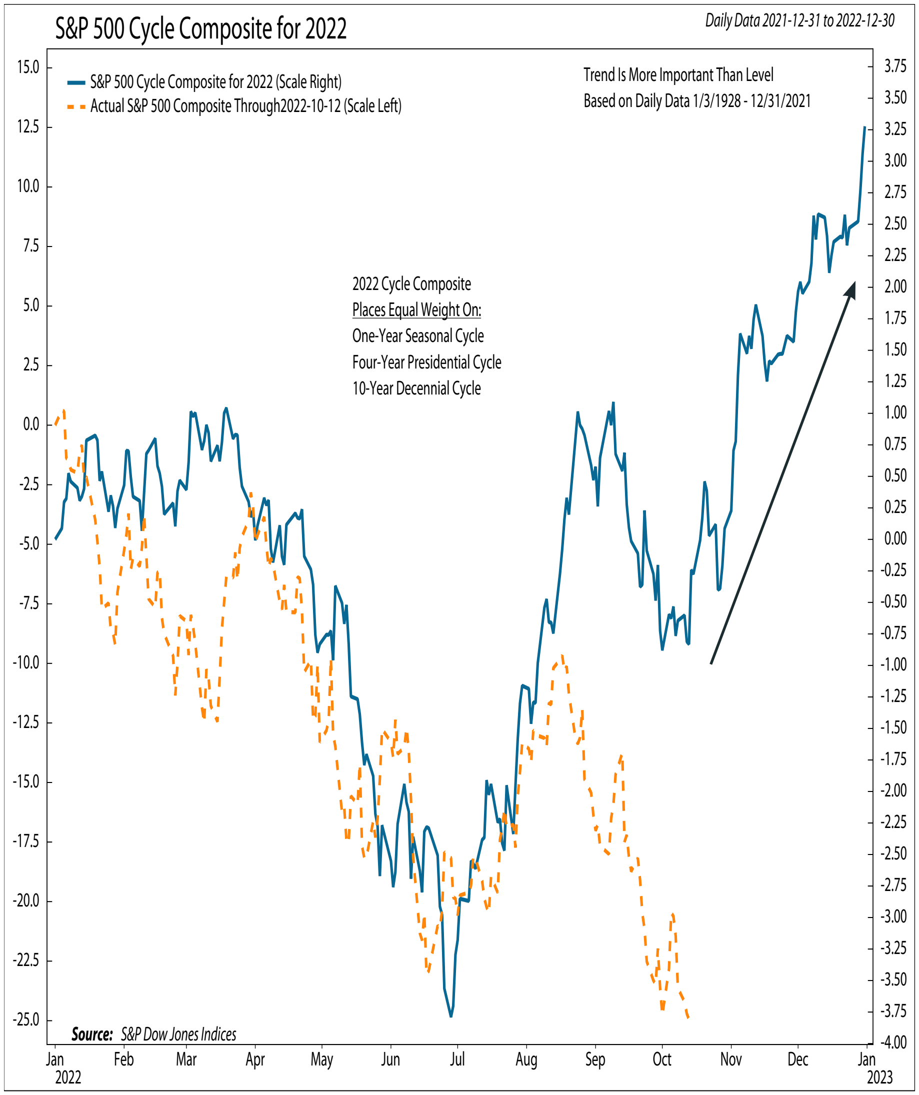
IE550



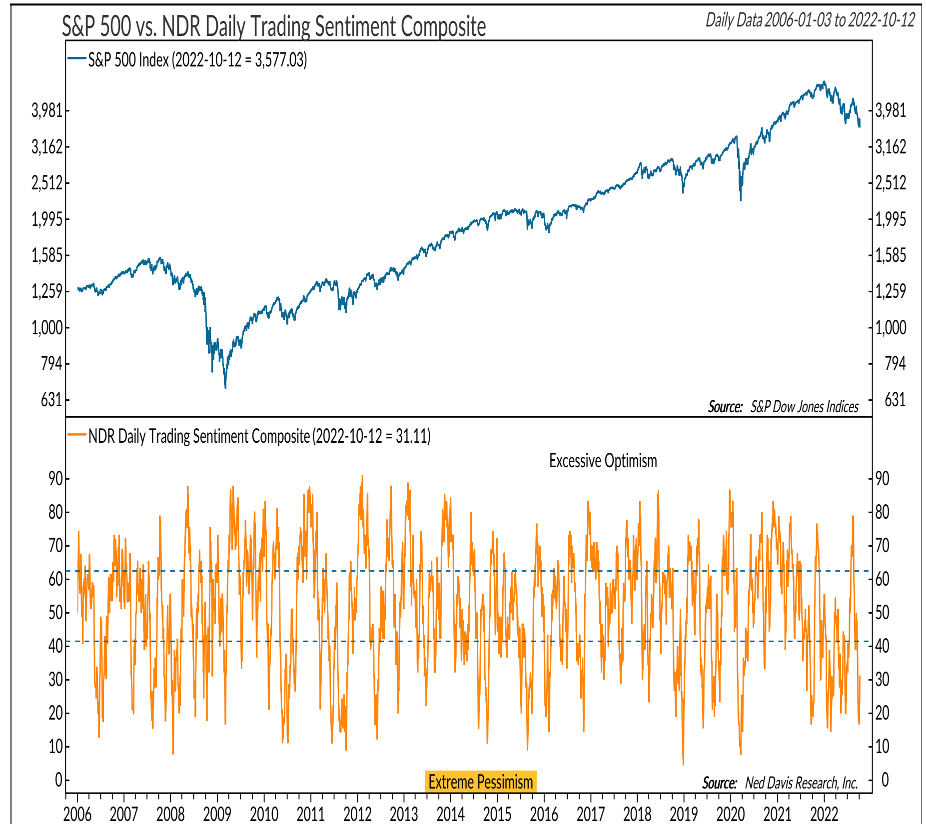
MSCI ACWI Performance		
Full History: 1995-12-31 to 2022-08-31		
Breadth Indicators are	% Gain/ Annum	% of Time
Both in Upper Modes	-9.49	8.45
Mixed	6.74	35.34
Both in Lower Modes	3.74	56.21
Buy/Hold = 5.14% Gain/Annum		

IE730B

Cycle composite and pessimism suggest a yearend rally is possible.



S01666



S&P 500 Index Performance Full History: 1994-12-30 to 2022-10-12		
NDR Daily Sentiment Composite is	% Gain/ Annum	% of Time
Above 62.5	-6.74	28.29
41.5 - 62.5	6.80	43.98
Below 41.5	26.24	27.73
Buy/Hold = 7.66% Gain/Annum		

S&P 500 Index Performance Chart View: 2006-01-03 to 2022-10-12		
NDR Daily Sentiment Composite is	% Gain/ Annum	% of Time
Above 62.5	-4.16	29.30
41.5 - 62.5	3.15	41.59
Below 41.5	23.44	29.11
Buy/Hold = 6.37% Gain/Annum		

DAVIS265

U.S. Despite two quarters of GDP decline, recession unlikely currently.

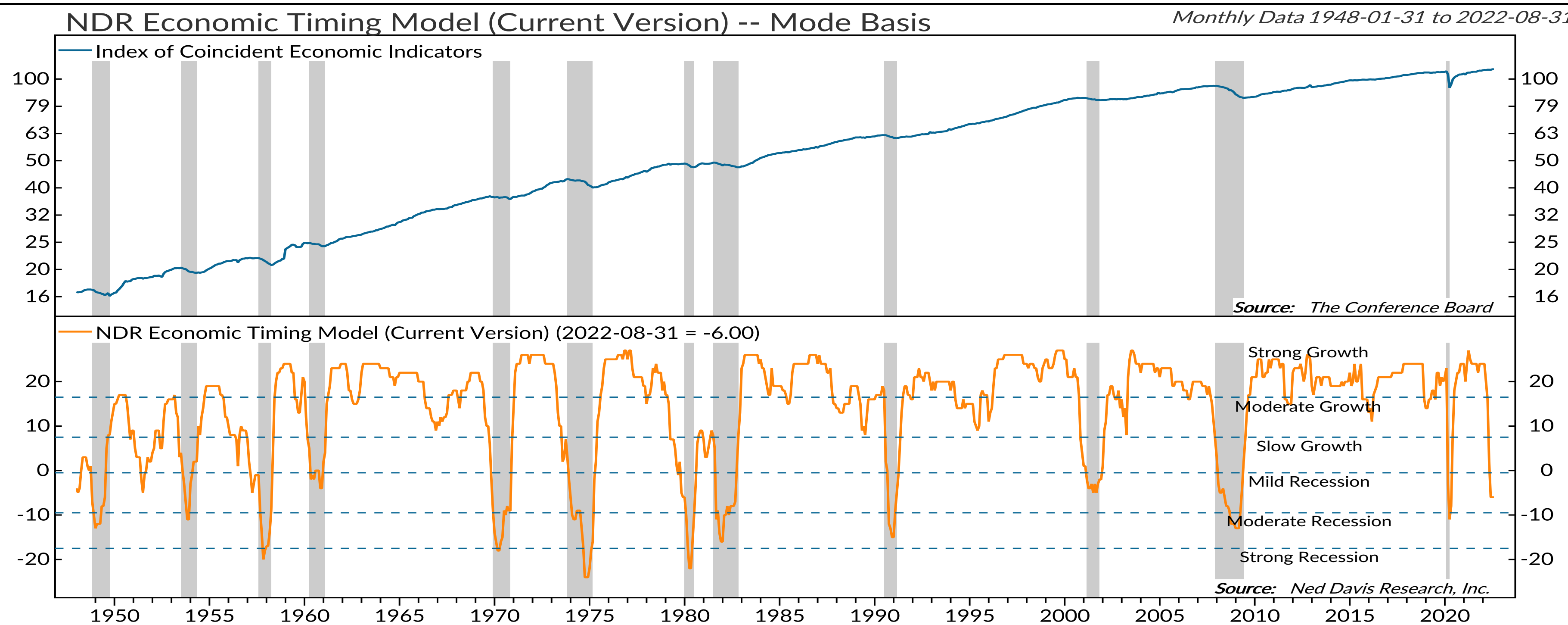
Above-Trend Growth vs. Recession Watch Report

Indicator	Median Lead Time of Peak/ Trough to Slowdown	Months Since Recent Peak/ Trough in Current Expansion3	Date
NDR Recession Probability Model	5	25	2022-08-31
Housing Starts (Smoothed 3-Mo Change)	12	20	2022-08-31
NDR Economic Timing Model	9	16	2022-08-31
NDR Composite Leading Index	18	16	2022-08-31
National Financial Conditions Index	11	16	2022-10-07
Initial Claims for Unemployment Insurance (4-wk Avg)	12	6	2022-10-07
Conference Board's Consumer Confidence Index	13	15	2022-09-30
Conference Board's CEO Confidence Index	25	18	2022-12-31
ISM Manufacturing Index	18	18	2022-09-30
ISM Services PMI	16	10	2022-09-30

Source: Ned Davis Research, Inc., Department of Commerce, Federal Reserve Bank of Chicago, Federal Reserve Bank of Philadelphia, Haver Analytics, The Conference Board
Indicators which have reached their above-trend growth level are highlighted green.
Indicators which have reached their key recession level are highlighted red.

Ned Davis Research ECON_20.RPT

But rising risks for 2023.



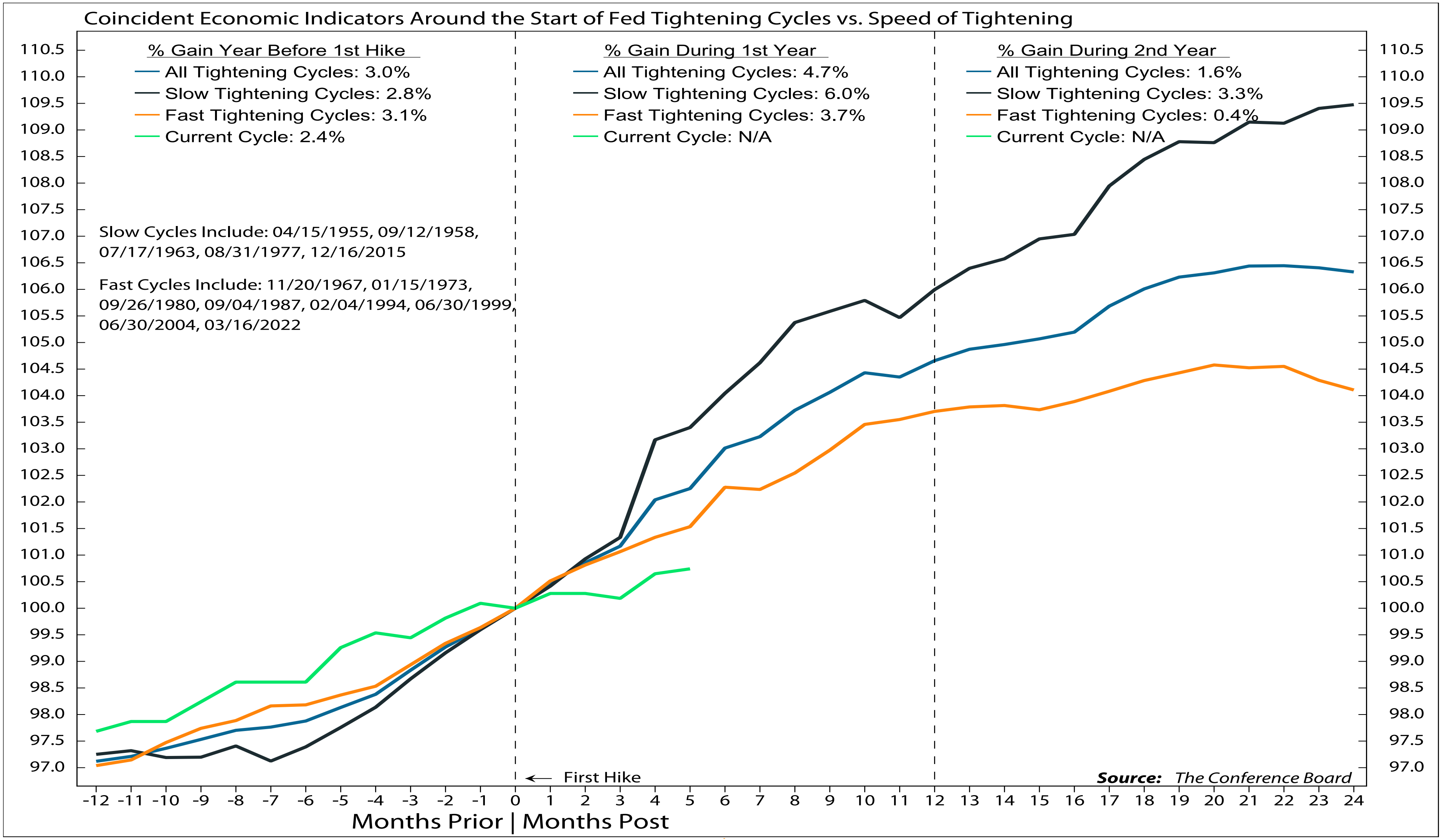
Shaded areas represent National Bureau of Economic Research recessions

Coincident Index Performance **Full History:** 1948-01-31 to 2022-08-31		
Economic Timing Model Indicates	% Gain/ Annum	% of Time
Strong Recession	-7.96*	1.23
Moderate Recession	-4.08	4.89
Mild Recession	-3.08	8.64
Slow Growth	2.16	8.13
Moderate Growth	2.92	18.55
Strong Growth	4.19	58.56
Buy/Hold = 2.56% Gain/Annum		
** Cases less than one year are not annualized*		

E2A

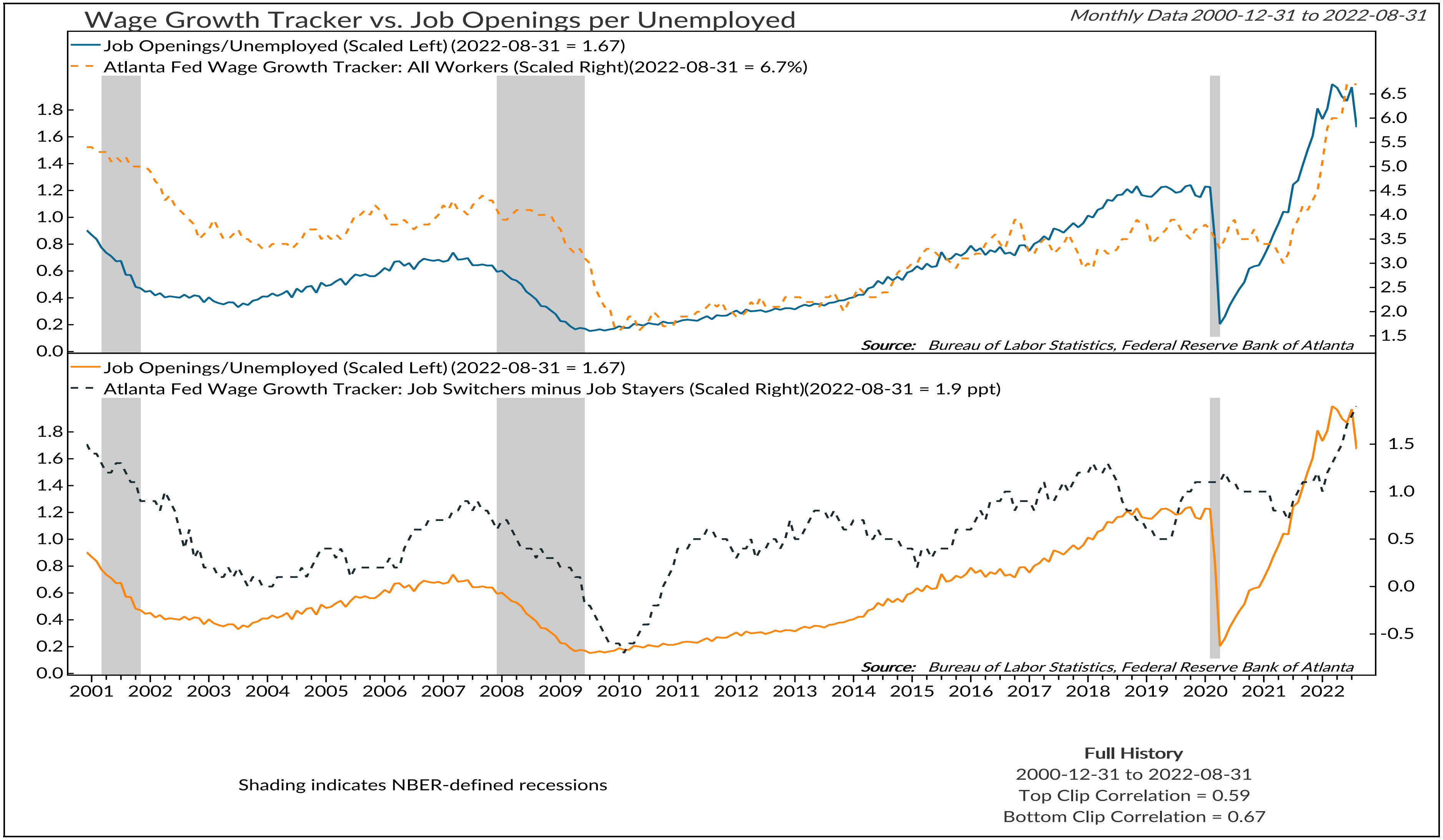
NDR

Fed policy happens with a lag.



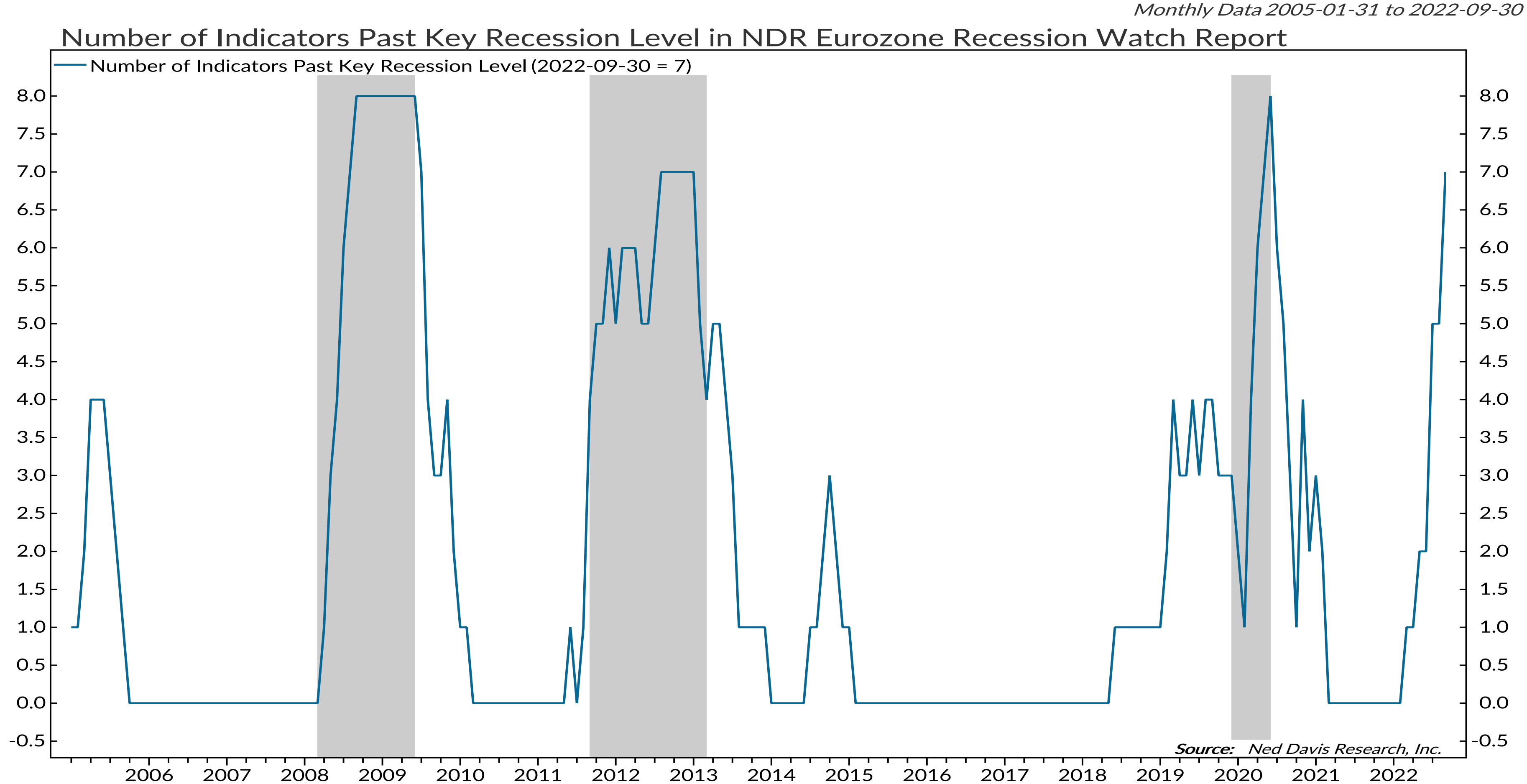
E570E

Soft landing not completely off the table.



E168J

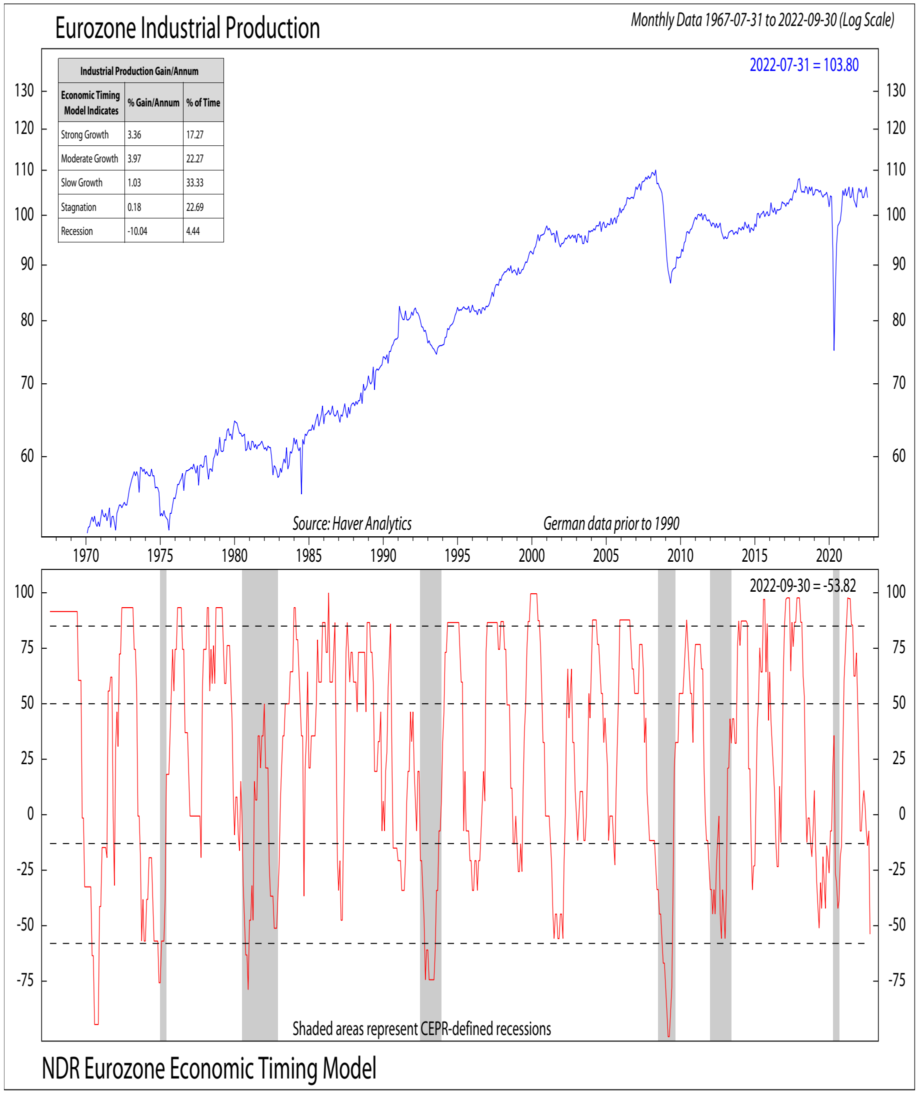
Eurozone Can't avoid recession for much longer.



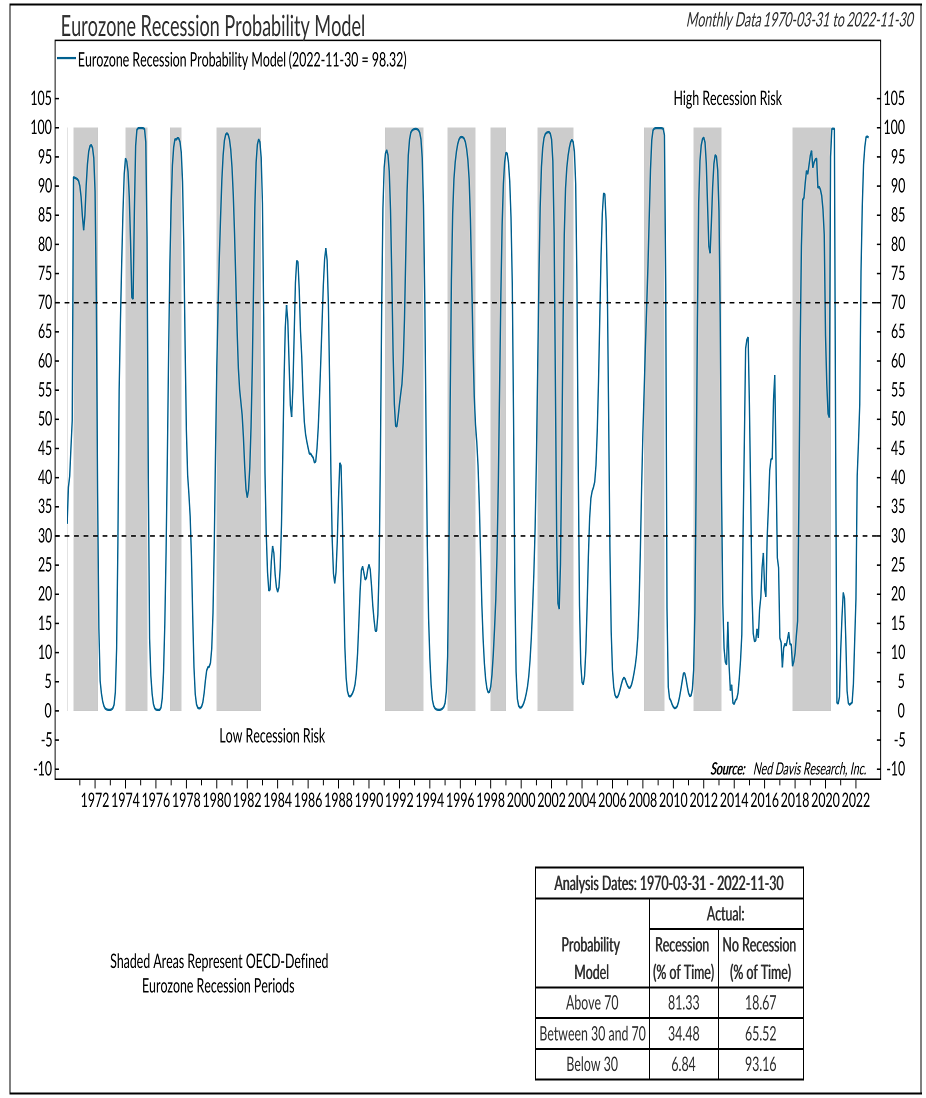
Shading indicates ECRI-defined recessions
The NDR Eurozone Recession Watch Report (ICS_260_EU.RPT) includes 8 key economic indicators.
Once a majority turn negative, a recession is more likely

IE1030

Our models are at levels associated with recession.

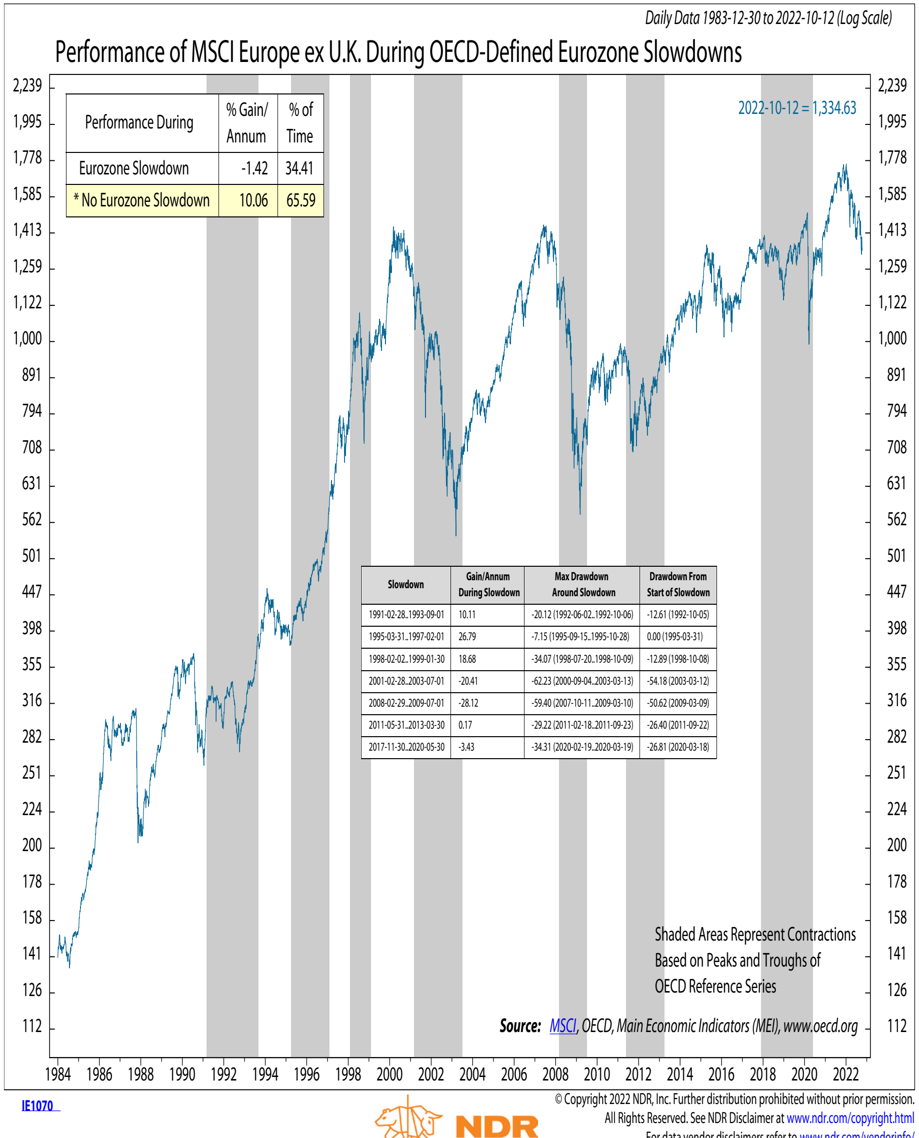


IE1020



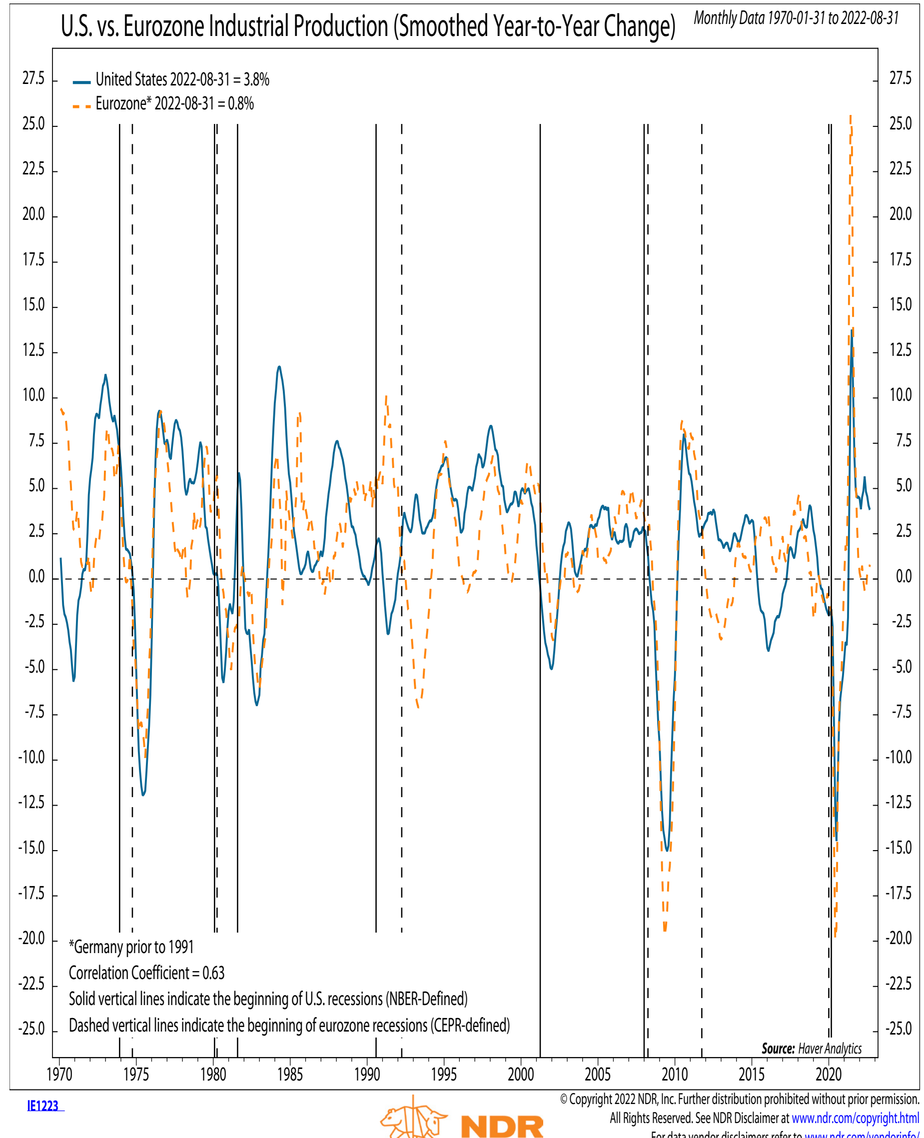
IE1090

Will Europe drag the rest of the world down with it?

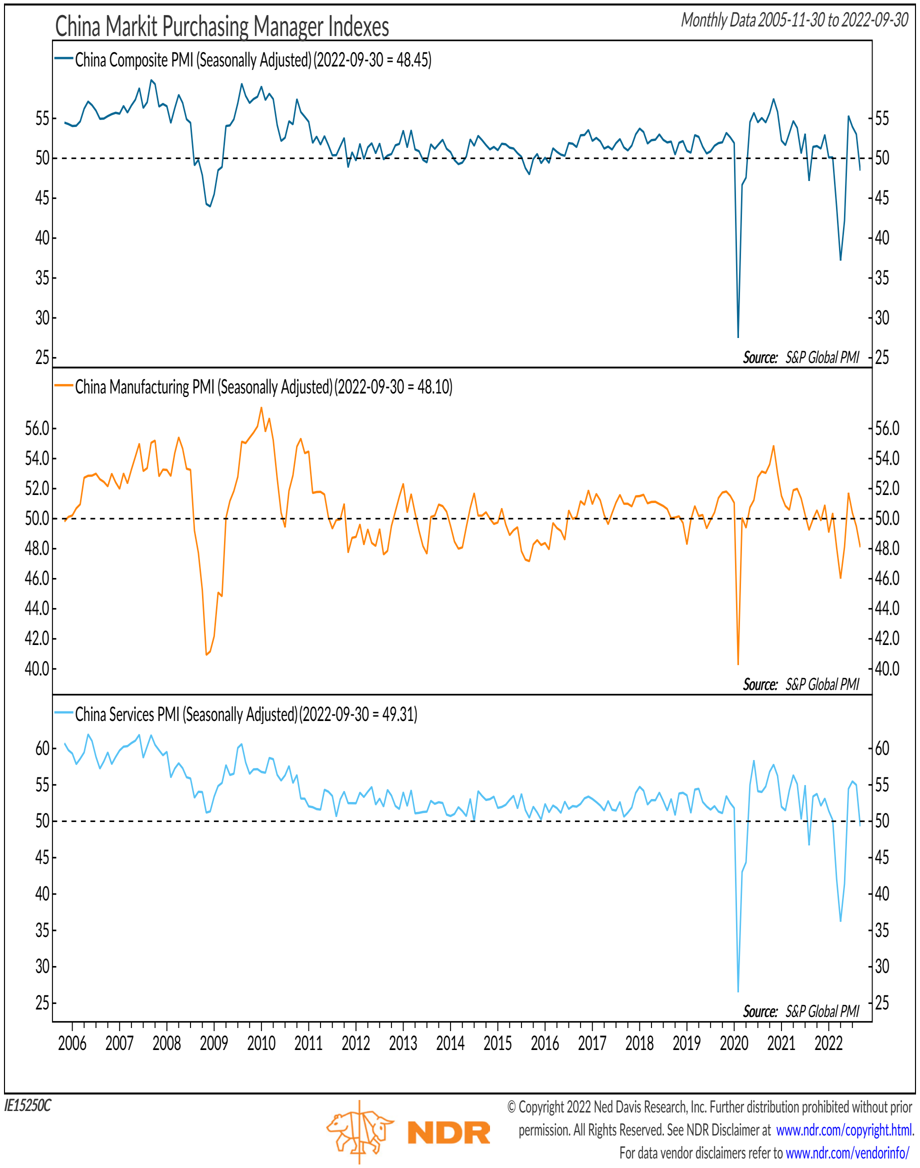


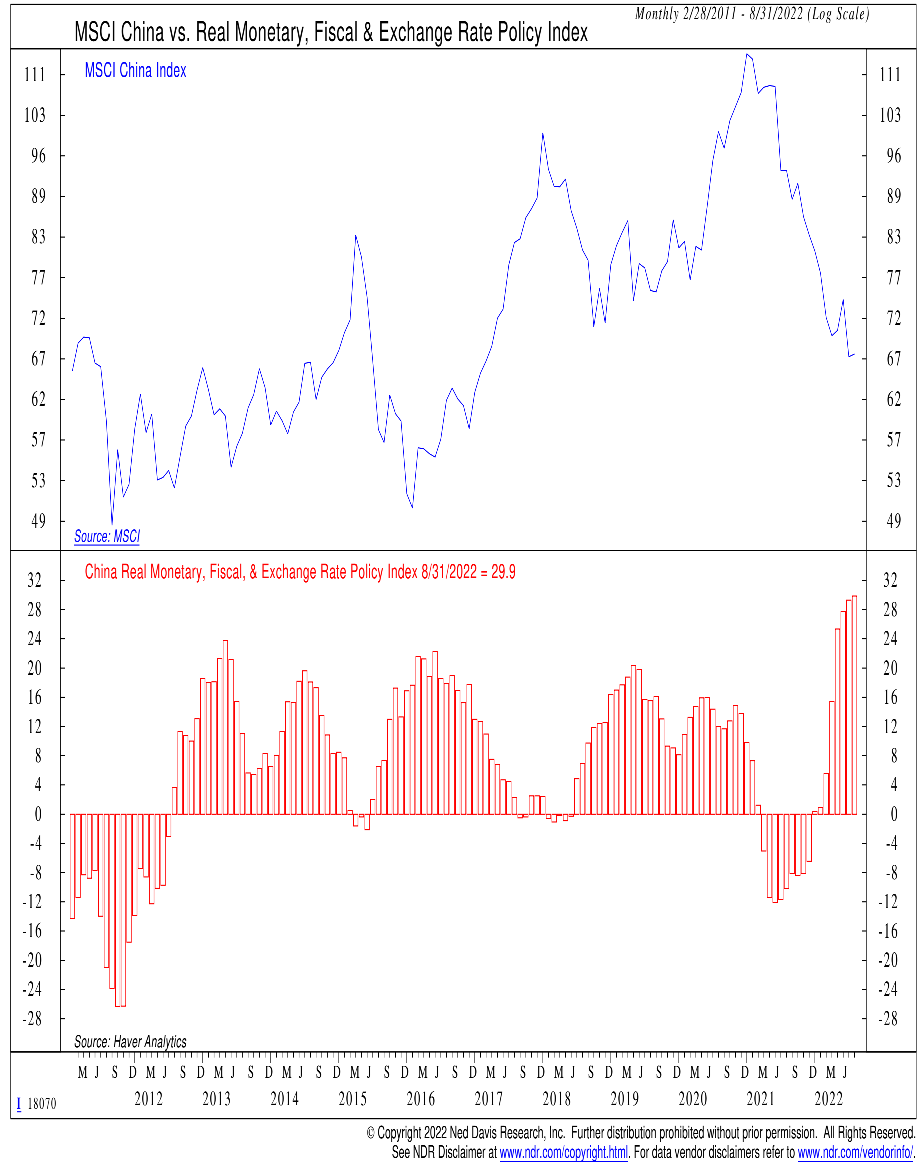
Performance During	% Gain/ Annum	% of Time
Eurozone Slowdown	-1.42	34.41
* No Eurozone Slowdown	10.06	65.59

Slowdown	Gain/Annum During Slowdown	Max Drawdown Around Slowdown	Drawdown From Start of Slowdown
1991-02-28..1993-09-01	10.11	-20.12 (1992-06-02..1992-10-06)	-12.61 (1992-10-05)
1995-03-31..1997-02-01	26.79	-7.15 (1995-09-15..1995-10-28)	0.00 (1995-03-31)
1998-02-02..1999-01-30	18.68	-34.07 (1998-07-20..1998-10-09)	-12.89 (1998-10-08)
2001-02-28..2003-07-01	-20.41	-62.23 (2000-09-04..2003-03-13)	-54.18 (2003-03-12)
2008-02-29..2009-07-01	-28.12	-59.40 (2007-10-11..2009-03-10)	-50.62 (2009-03-09)
2011-05-31..2013-03-30	0.17	-29.22 (2011-02-18..2011-09-23)	-26.40 (2011-09-22)
2017-11-30..2020-05-30	-3.43	-34.31 (2020-02-19..2020-03-19)	-26.81 (2020-03-18)

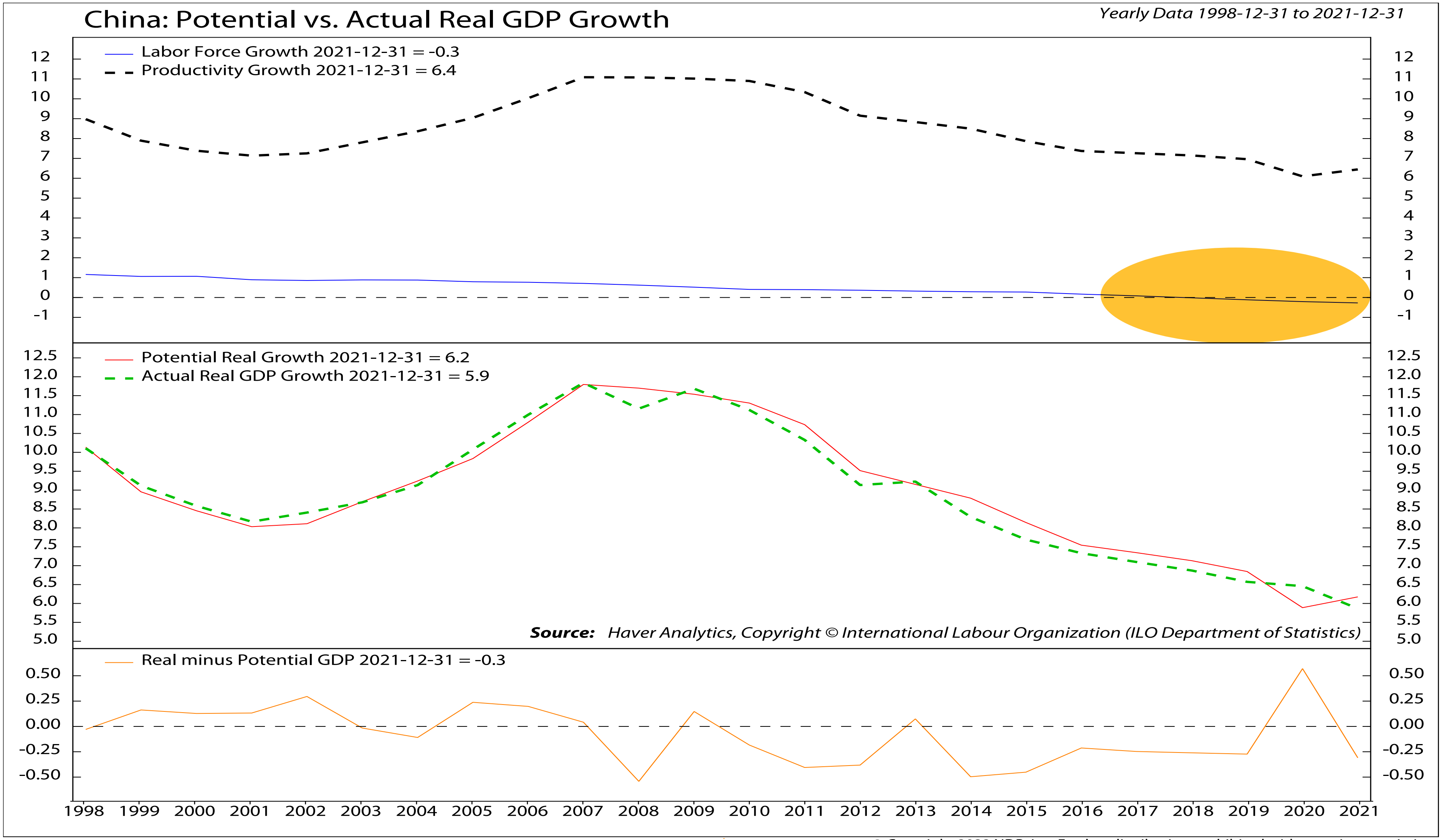


China Growth likely to be positive.



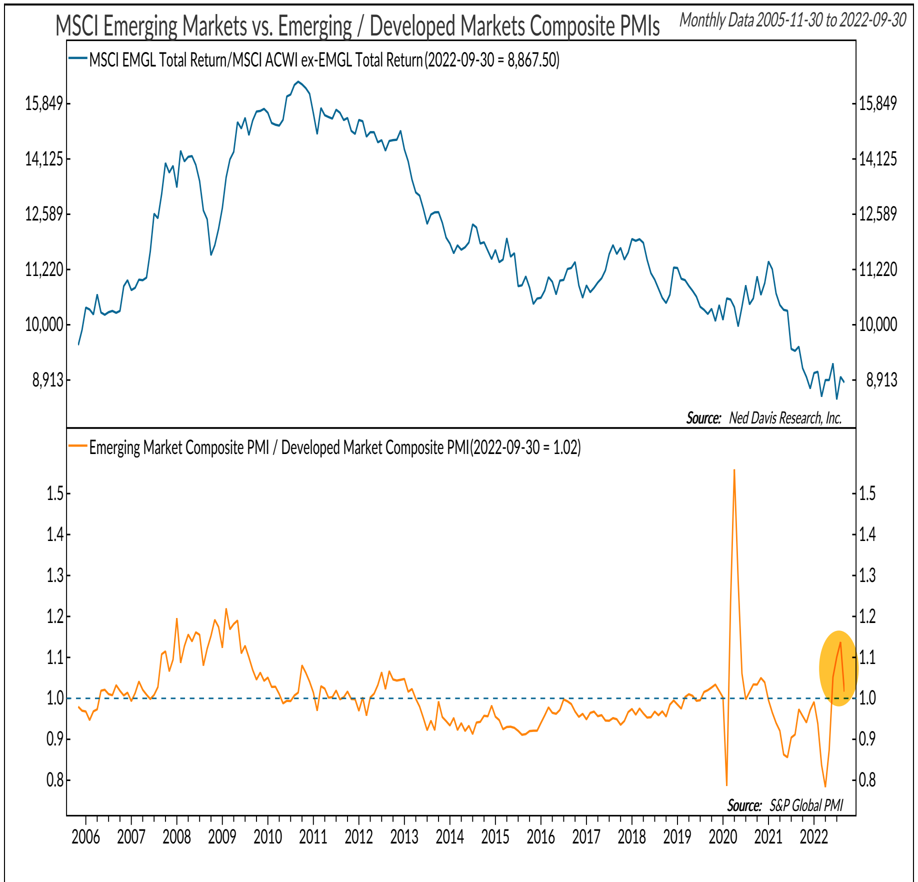


China has its fair share of long-term problems.



ICS_224.RPT

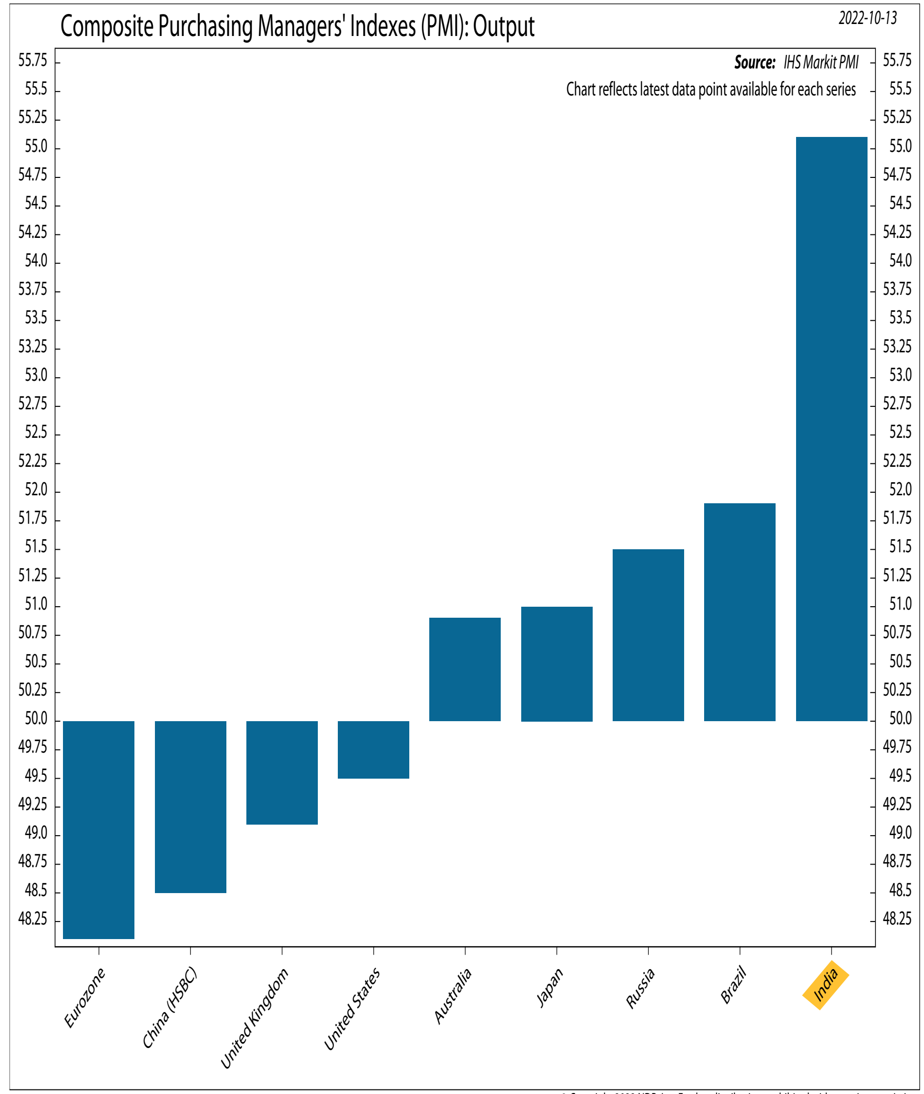
Emerging Markets Holding up, led by India.



MSCI EMGL / MSCI ACWI ex EMGL Performance Full History: 2005-11-30 to 2022-09-30		
PMI Ratio	% Gain/ Annum	% of Time
Above 1.0	1.22	45.97
Below 1.0	-1.87	54.03
Buy/Hold = -0.46% Gain/Annum		

IE258C

NDR



ICS_214.RPT

NDR

Bottom Line

- Slower global growth and a more difficult year for equities was inevitable this year.
- Stubbornly elevated inflation, waning monetary and fiscal support, the bullwhip effect, and the depletion of excess pandemic-related savings present risks to the outlook. Geopolitical factors amplify these risks.
- There are signs that the inflation rate may peak soon, but will remain elevated for longer.
- Weight of the evidence points to moderate global slowdown, but severe recession risk rising.

NDR

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NDR HOUSE VIEWS (Updated October 13, 2022)

For global asset allocation, NDR recommends underweight allocation to stocks, overweight allocation to cash and marketweight allocation to bonds. We are underweight stocks in response to new lows and bearish model readings.

Equity Allocation

U.S. | We are underweight stocks on an absolute basis and relative to bonds and cash. The hawkish Fed has overwhelmed the positive tape development in the summer. We favor small-caps over large-caps and are neutral on Growth versus Value.

INTERNATIONAL | We are overweight U.S., underweight Europe ex. U.K., and marketweight on all other regions.

Macro

ECONOMY | The global economy is in a sustained slowdown due to waning monetary and fiscal support, stubbornly high inflation, and rising geopolitical risk. While the slowdown remains moderate, the risk of severe recession increases in 2023. Global inflation pressures are easing but will remain historically elevated in the foreseeable future.

FIXED INCOME | We reduced our bond exposure to 95% of benchmark duration and expect the yield curve to flatten. We are overweight Treasurys, MBS, and CMBS and underweight high yield. We are marketweight everything else.

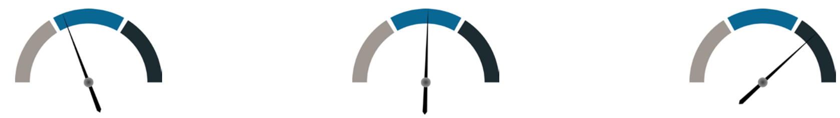
GOLD | Downtrend intact with relatively restrictive central bank policies. We are bearish.

DOLLAR | Recognizing strengthening trend and positive composite readings, we are bullish.

Economic Summary

October 10, 2022

Near term activity: ● Accelerating ● Neutral ● Decelerating



Global Economy (2.9%) | U.S. Economy (1.5%-2.0%) | U.S. Inflation (4.0%-4.5%)

Economic gauges reflect changes in near-term economic activity. Numbers in parenthesis refer to NDR 2022 forecasts.

Global Asset Allocation

● Overweight ● Marketweight ● Underweight

- Cash (15%)
- Bonds (35%)
- Stocks (50%)

Benchmark: Stocks (55%), Bonds (35%), Cash (10%)

Equities — Regional Relative Allocation

- U.S. (66%)
- Emerging Markets (11%) | Japan (5%) | U.K. (4%) | Pacific ex. Japan (2%) | Canada (3%)
- Europe ex. U.K. (9%)

Benchmark – U.S. (61.1%), Europe ex. U.K. (12.2%), Emerging Markets (11.4%), Japan (5.6%), U.K. (3.7%), Pacific ex. Japan (3%), Canada (3.1%)

Global Bond Allocation

- Japan (19%)
- U.S. (55%) | Europe (25%)
- U.K. (1%)

Benchmark: U.S. (57%), Europe (25%), Japan (15%), U.K. (4%)

U.S. Allocation

- Cash (15%) | Small-Cap
- Bonds (35%) | Growth | Value | Mid-Cap
- Stocks (50%) | Large-Cap

Benchmark: Stocks (55%), Bonds (35%), Cash (10%)

Sectors

- Health Care (17%) | Energy (5%)
- Financials (7%)

Benchmark: Technology (27.5%), Health Care (13.6%), Financials (10.6%), Communication Services (10.0%), Consumer Discretionary (9.5%), Consumer Staples (6.9%), Industrials (7.8%), Energy (3.7%), Utilities (2.7%), Real Estate (2.7%), Materials (2.5%)

U.S. Bonds — 95% of Benchmark Duration

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Alejandra Grindal

Chief Economist

Alejandra Grindal is the Chief Economist for Ned Davis Research Group. She is the primary person in charge of the firm's global economic outlook, and is responsible for identifying global economic trends and themes, particularly as they relate to developments in equity, fixed income, commodity, and currency markets. In recent years, Alejandra has been particularly focused on global demographics and labor force trends, China's economic transition, and Japan's lost decade. She joined Ned Davis Research Group in 2006.

Alejandra is a member of the National Association for Business Economics, where she has been involved in various committees, such as the International Roundtable and the Business Conditions and Policy Surveys. She is a frequent speaker at professional and investment conferences. Her work has been quoted in national media, including Barron's, Wall Street Journal, CNBC, and TIME, and is a guest on CNBC, Bloomberg TV, and TD Ameritrade Network.

Prior to joining Ned Davis Research Group, Alejandra taught Microeconomics and Macroeconomics at Florida State University during her graduate studies, and then worked as a full-time professor at Santa Fe College and Edison College. Alejandra also worked in British Parliament as a research assistant, where she participated in policy and constituent research and campaign marketing.

Alejandra received her Masters degree in Economics and a Bachelor of Science degree in Economics and International Affairs, with **summa cum laude** and **Phi Beta Kappa** distinction, from Florida State University.

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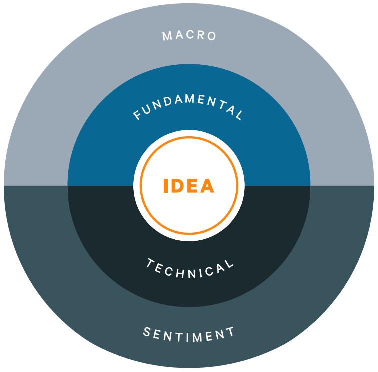

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