

# Macroeconomic and Geopolitical Risks for Agricultural Goods Prices

May 2022

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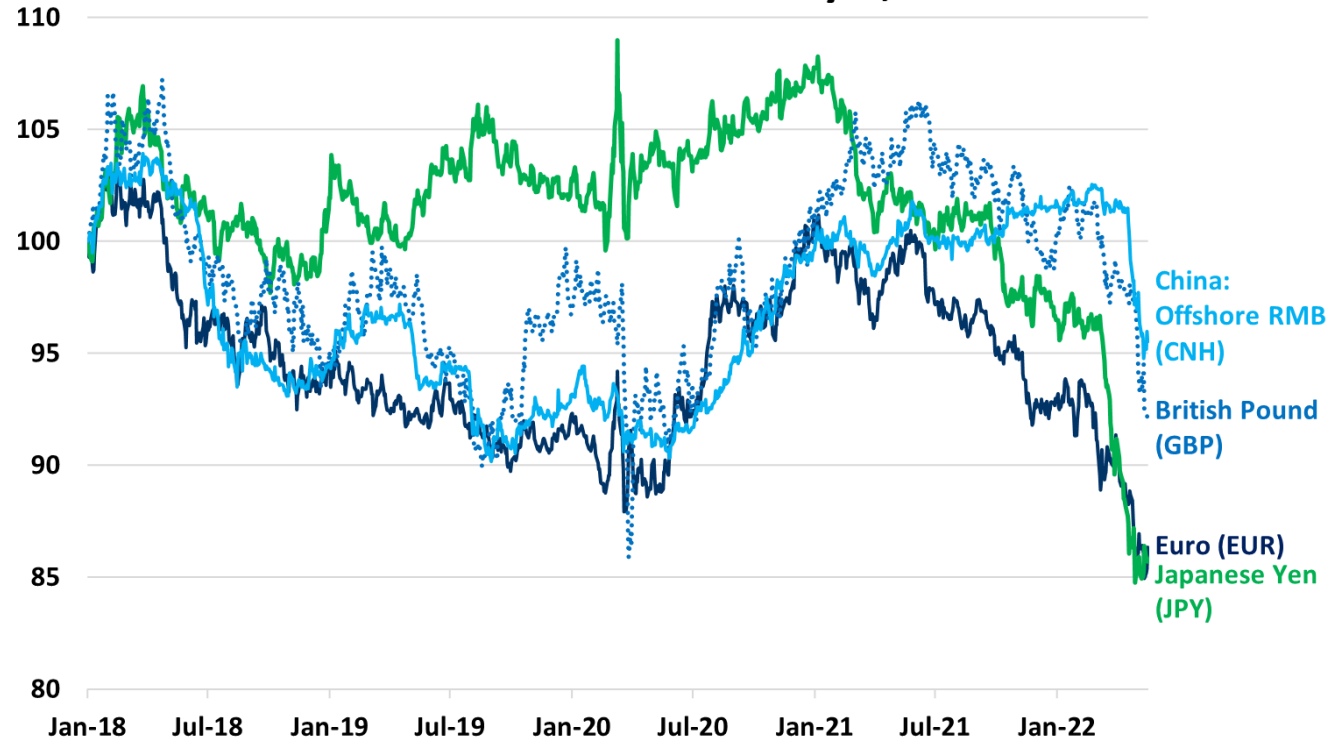
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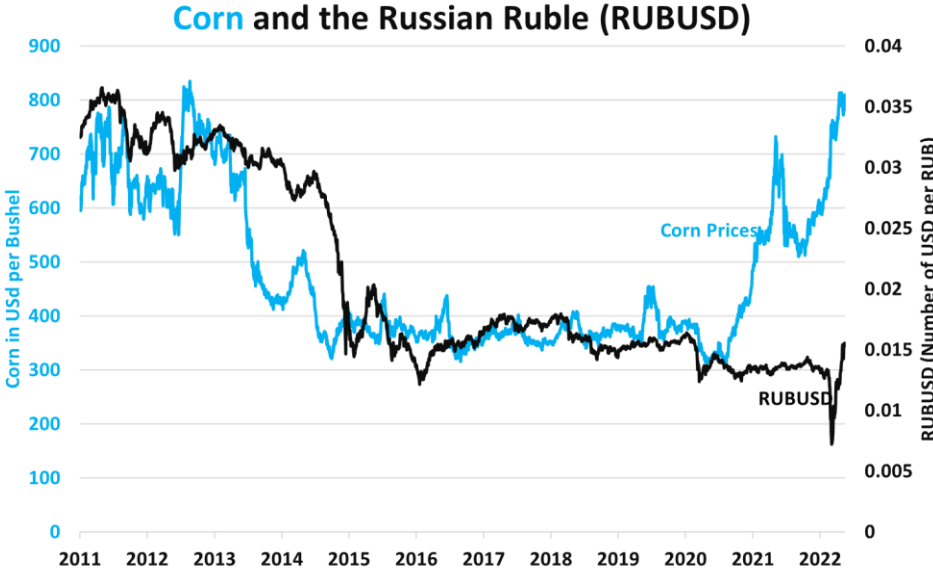
# Many Currencies Are Falling Versus the U.S. Dollar

## Performance vs. USD: January 1, 2018 = 100

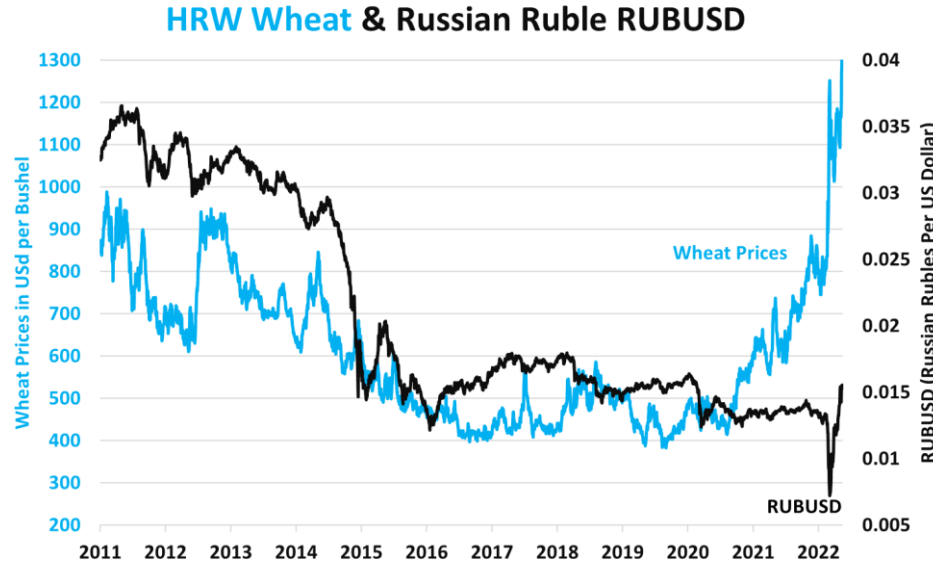


Bloomberg Professional (JPY, CNH, GBP and EUR)

# Corn and Wheat Have Disconnected from the Rouble Amid Droughts in North America and War in Ukraine But an Artificially Supported Rouble Isn't Halting Matters.



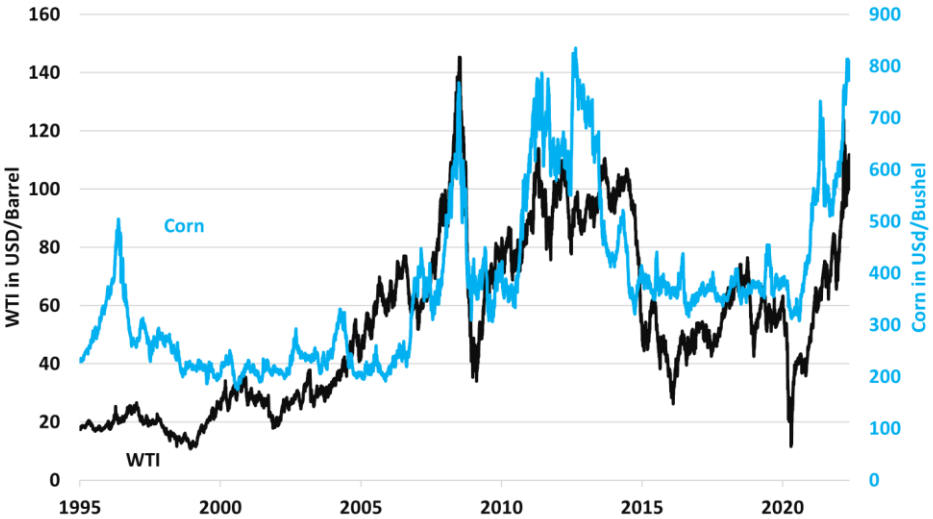
Source: Bloomberg Professional (C 1 and RUBUSD)



Source: Bloomberg Professional (KW1 and RUBUSD)

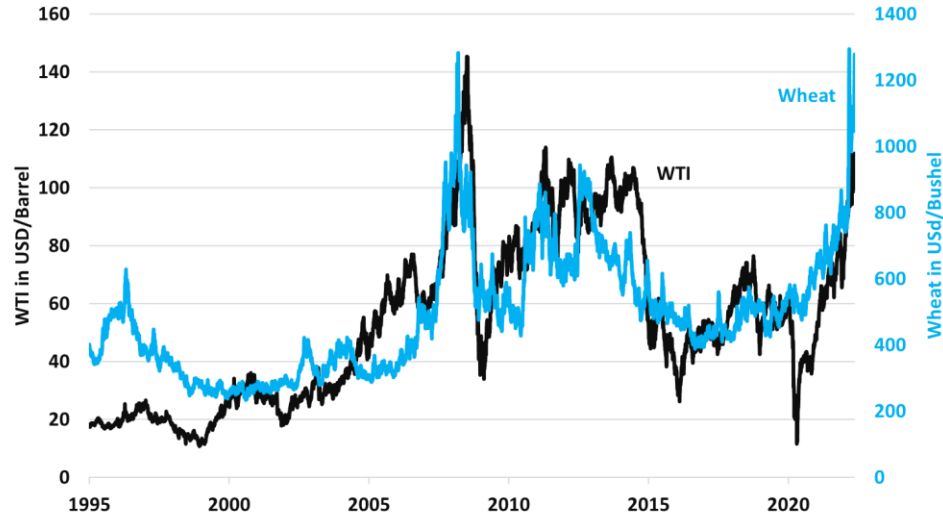
# Agricultural Goods Prices are Close Linked to Crude Oil

### WTI Crude Oil and Corn



Source: Bloomberg Professional (CL1 and C 1)

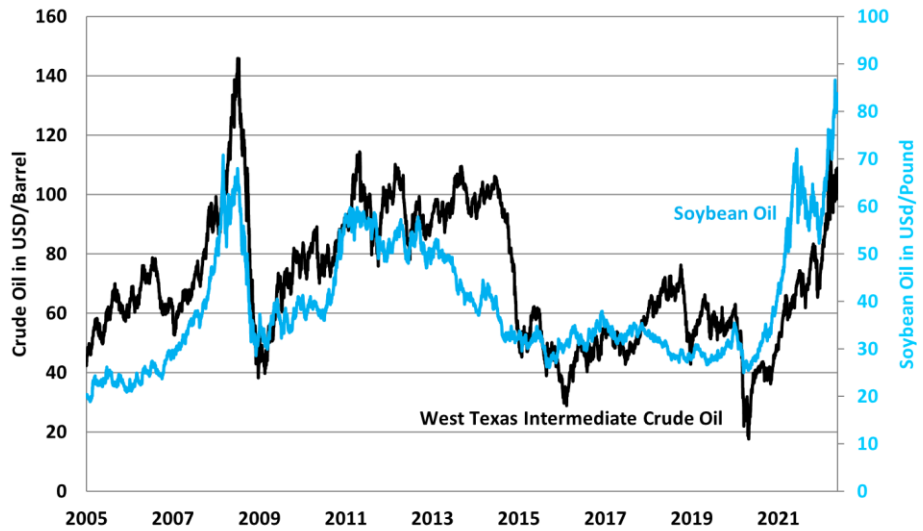
### WTI Crude Oil and Wheat



Source: Bloomberg Professional (CL1 and W 1)

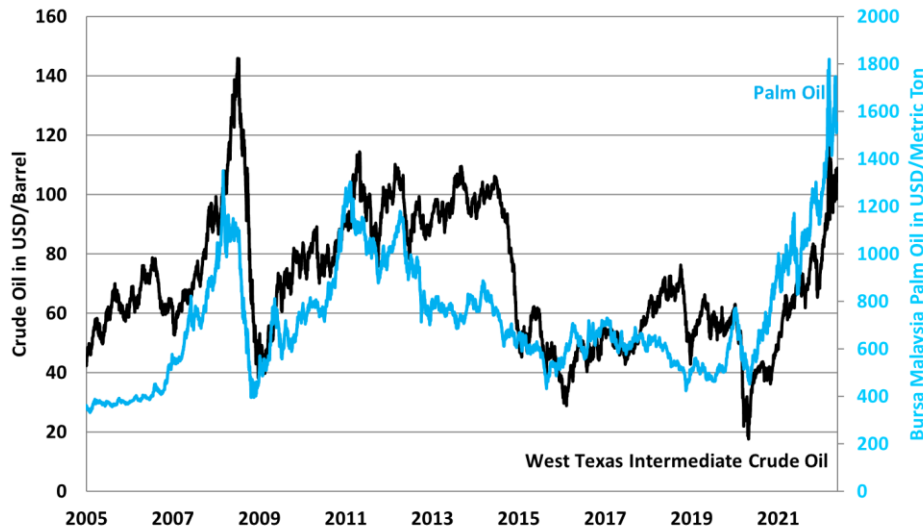
# Not Only Are Crude Oil and Vegetable Oil Prices Closely Linked, Vegetable Oil Prices Are Often a Leading Indicator of Crude.

### West Texas Intermediate Crude & Soybean Oil



Source: Bloomberg (CL2 and BO1)

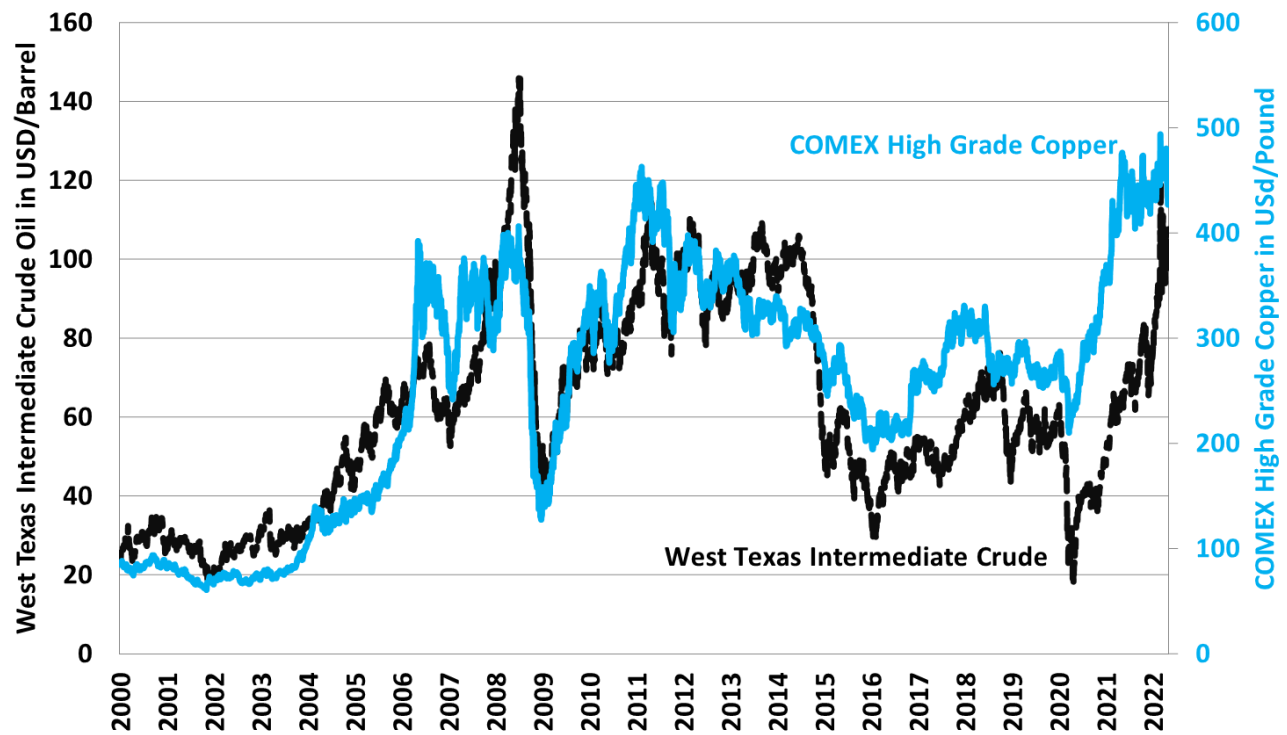
### West Texas Intermediate Crude & Palm Oil



Source: Bloomberg (CL1, KO1 and MYRUSD for conversion to \$s)

# Copper & Crude Are More Closely Linked Than Many Realize.

## Crude Oil and Copper

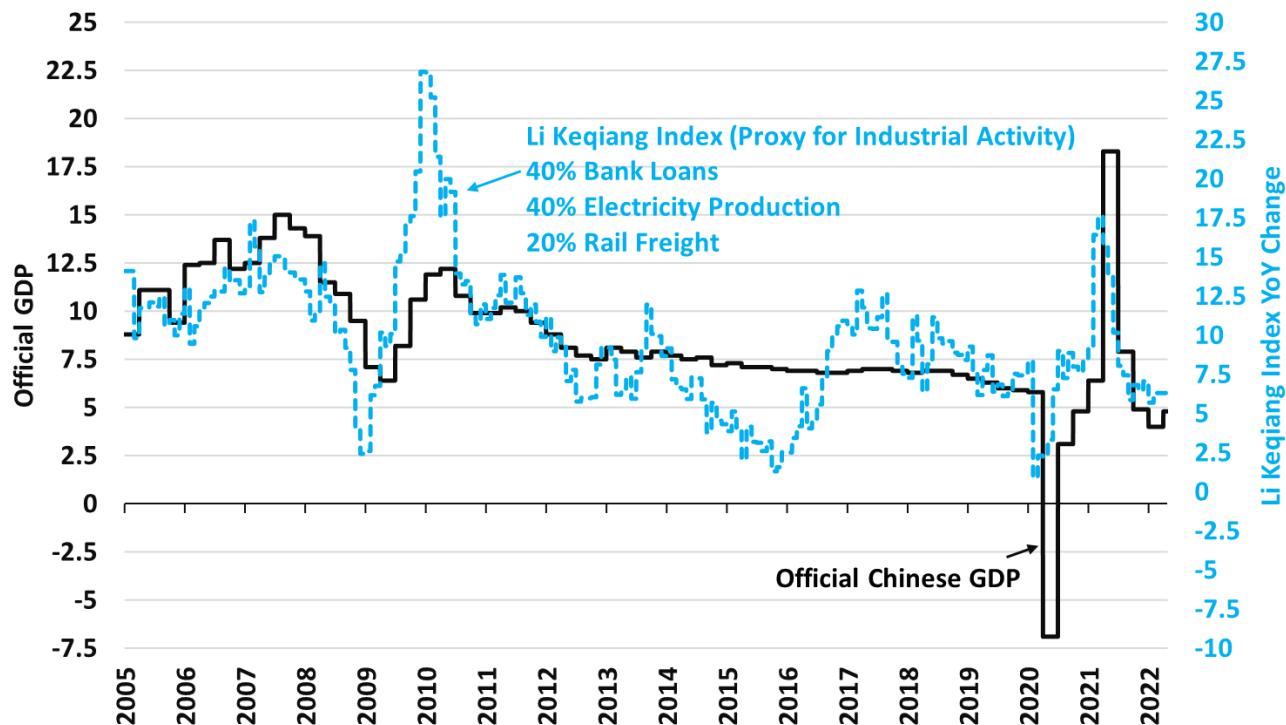


Source: Bloomberg Professional (CL1 and HG1)



# Many Commodities Are Closely Linked To Chinese Growth

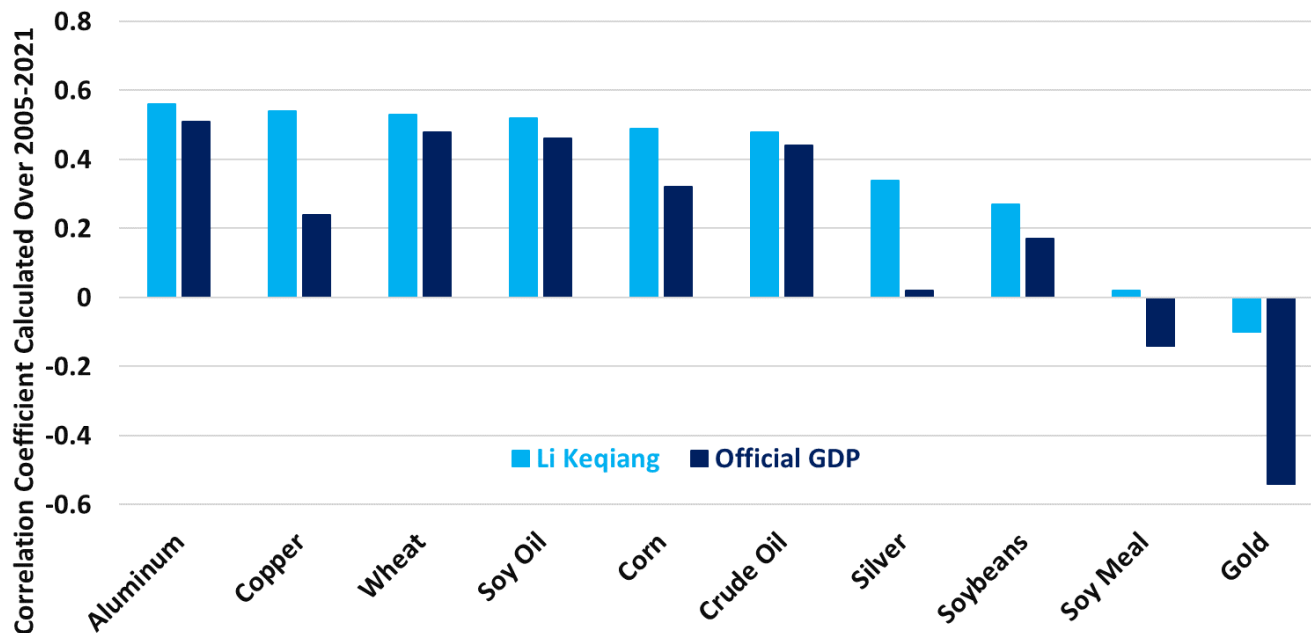
## China's Official GDP and The Li Keqiang Index



Source: Bloomberg Professional (CNGDPYOY and CLKQINDX)

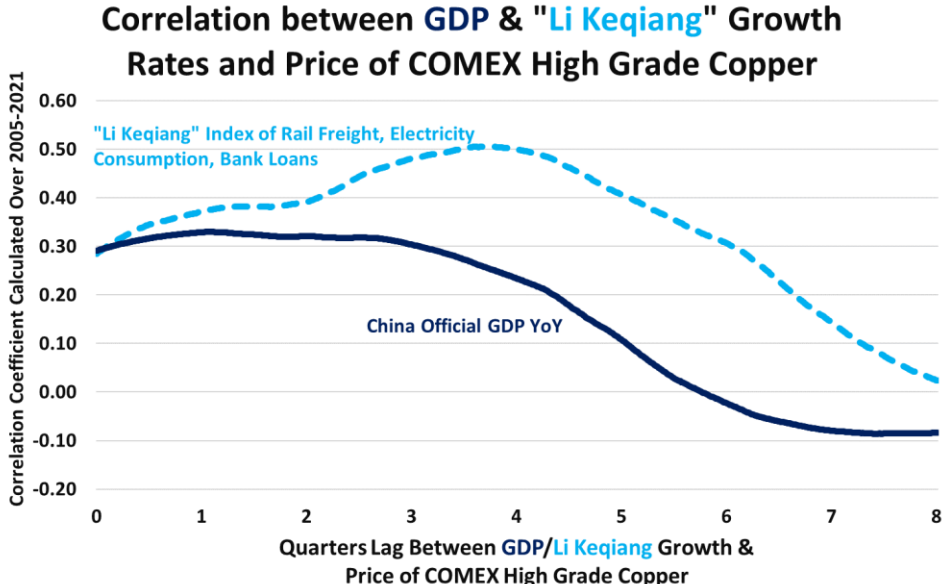
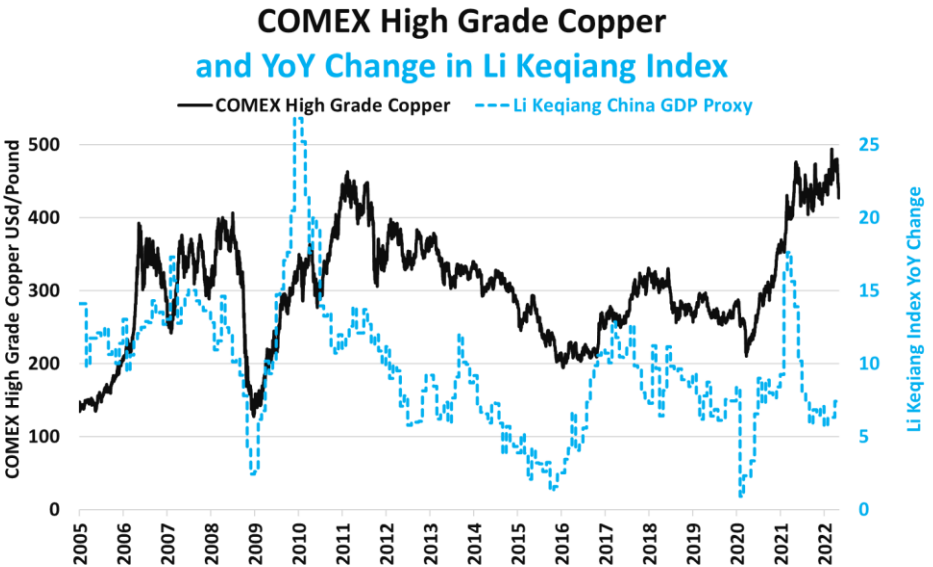
# China Claims Its Economy Grew by 4.8% YoY in Q1 2022

Correlation: **Li Keqiang Index** and Official GDP YoY Change  
and the Level of Commodity Prices One Year Later



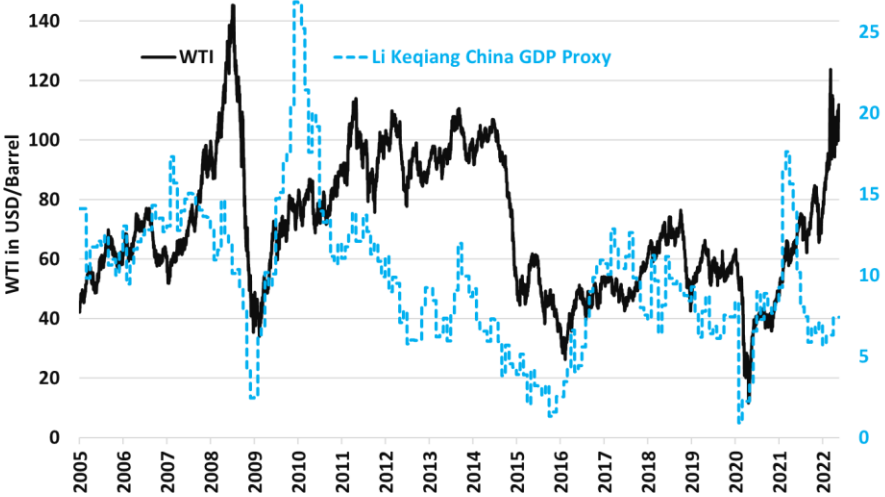
Source: Bloomberg Professional (ALE1, LA1, HG1, W 1, BO1, SI1, C 1, CL1, SI1, S 1, SM1 and GC1, CLKQINDX, CNGPDYOY), CME Economic Research Calculations

# Copper Often Does What China Does with a Lag Of About One Year.

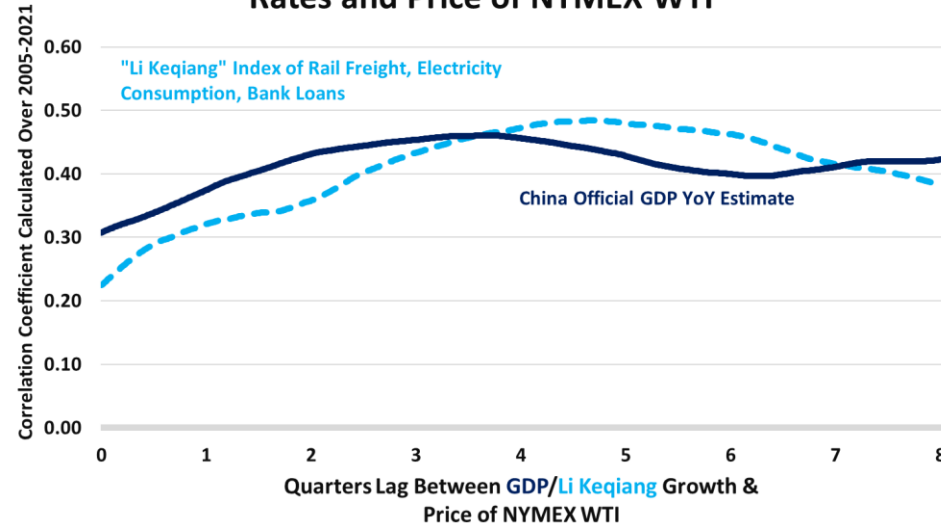


# Crude Oil Prices Also Follow Chinese Growth

WTI and YoY Change in Li Keqiang Index



Correlation between GDP & "Li Keqiang" Growth Rates and Price of NYMEX WTI

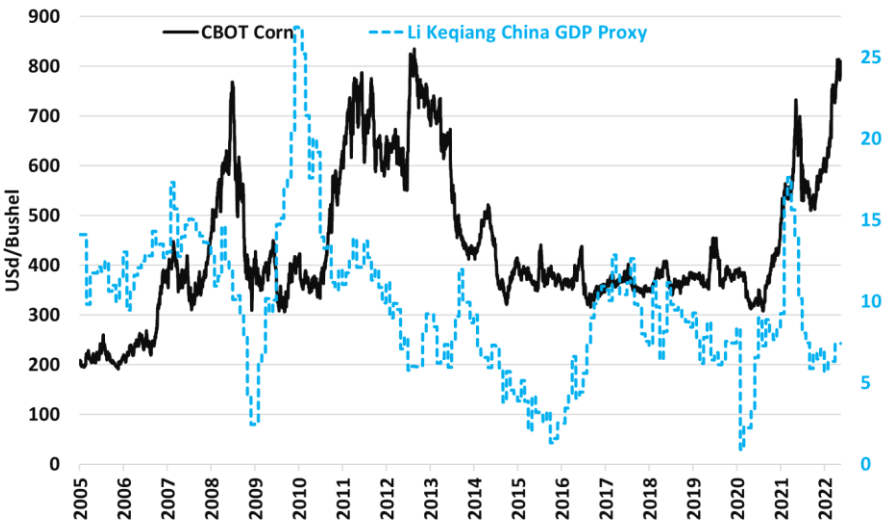


Source: Bloomberg Professional (CL1 and CLKQINDX)

Source: Bloomberg Professional (CL1, CNGDPYOY and CLKQINDX), CME Economic Research Calculations

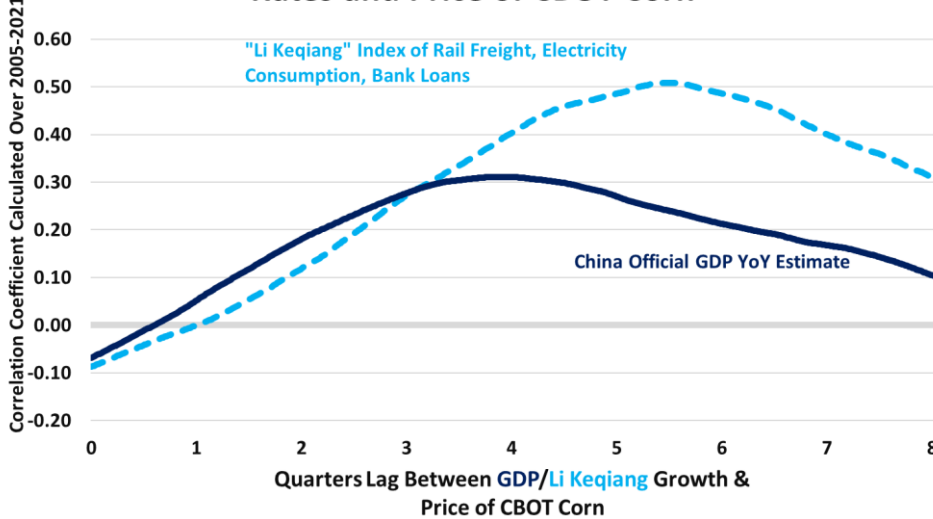
# Chinese Growth Often Impacts Agricultural Goods Markets With a Lag of About 1.5 Years.

CBOT Corn and YoY Change in Li Keqiang Index



Source: Bloomberg Professional (C 1 and CLKQINDX)

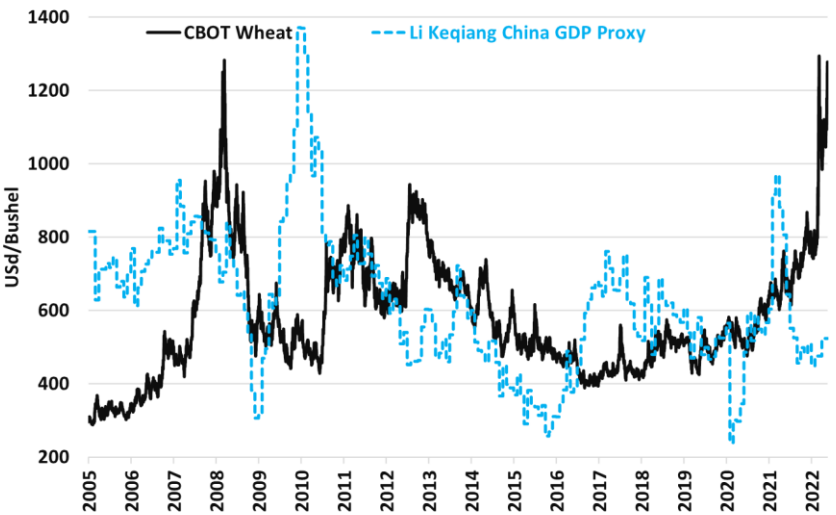
Correlation between GDP & "Li Keqiang" Growth Rates and Price of CBOT Corn



Source: Bloomberg Professional (C 1, CNGDPYOY and CLKQINDX), CME Economic Research Calculations

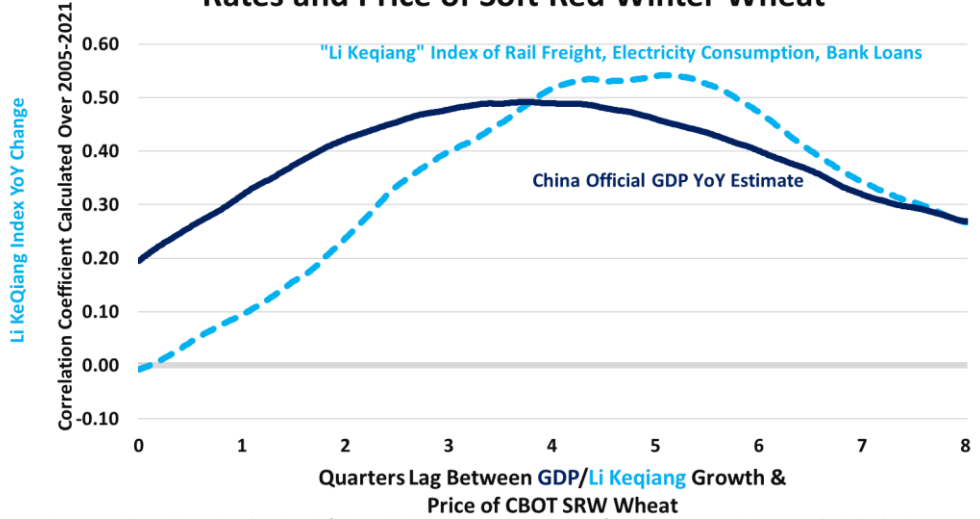
# Chinese Growth Often Impacts Agricultural Goods Markets With a Lag of About 1.5 Years.

CBOT Wheat and YoY Change in Li Keqiang Index



Source: Bloomberg Professional (W 1 and CLKQINDX)

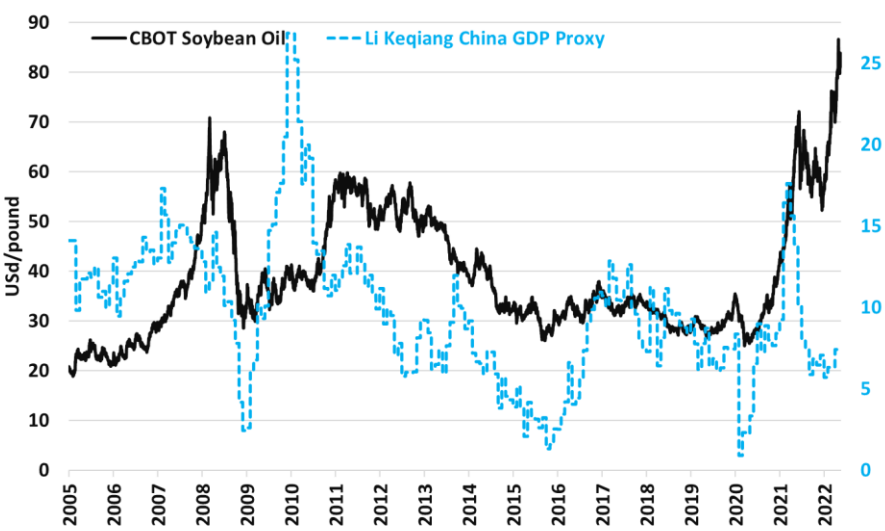
Correlation between GDP & "Li Keqiang" Growth Rates and Price of Soft Red Winter Wheat



Source: Bloomberg Professional (W 1, CNGDPYOY and CLKQINDX), CME Economic Research Calculations

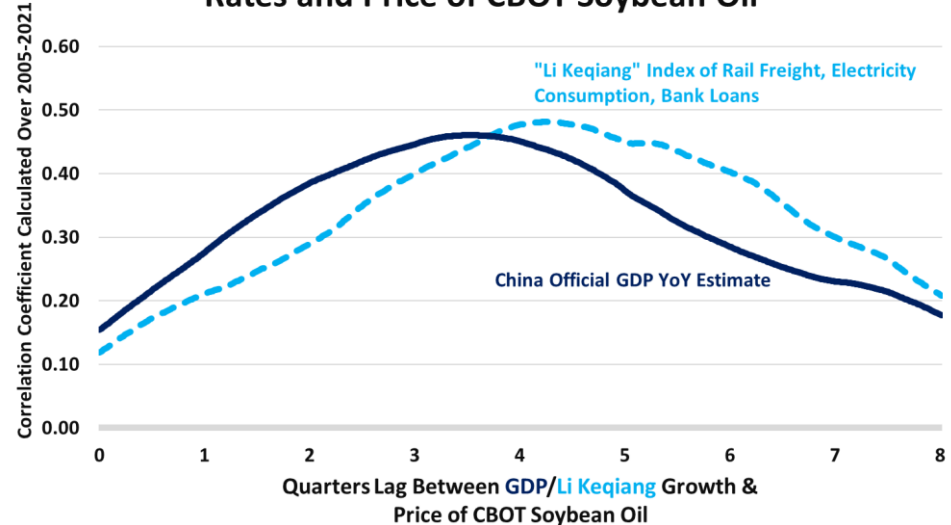
# Chinese Growth Often Impacts Agricultural Goods Markets With a Lag of About 1.5 Years.

CBOT Soy Oil and YoY Change in Li Keqiang Index



Source: Bloomberg Professional (BO1 and CLKQINDX)

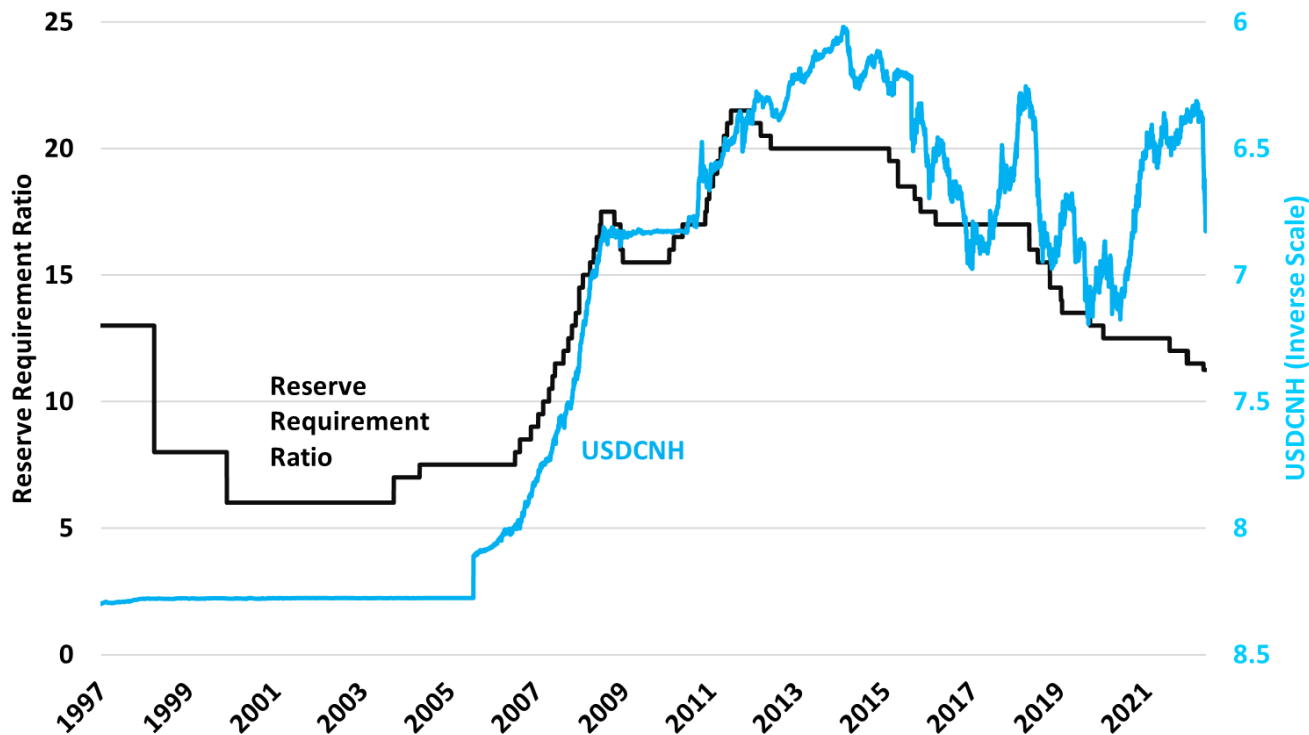
Correlation between GDP & "Li Keqiang" Growth Rates and Price of CBOT Soybean Oil



Source: Bloomberg Professional (BO1, CNGDPYOY and CLKQINDX), CME Economic Research Calculations

# China Eases Monetary Policy As the Fed Gets Ready to Tighten

## Chinese Yuan and Monetary Policy

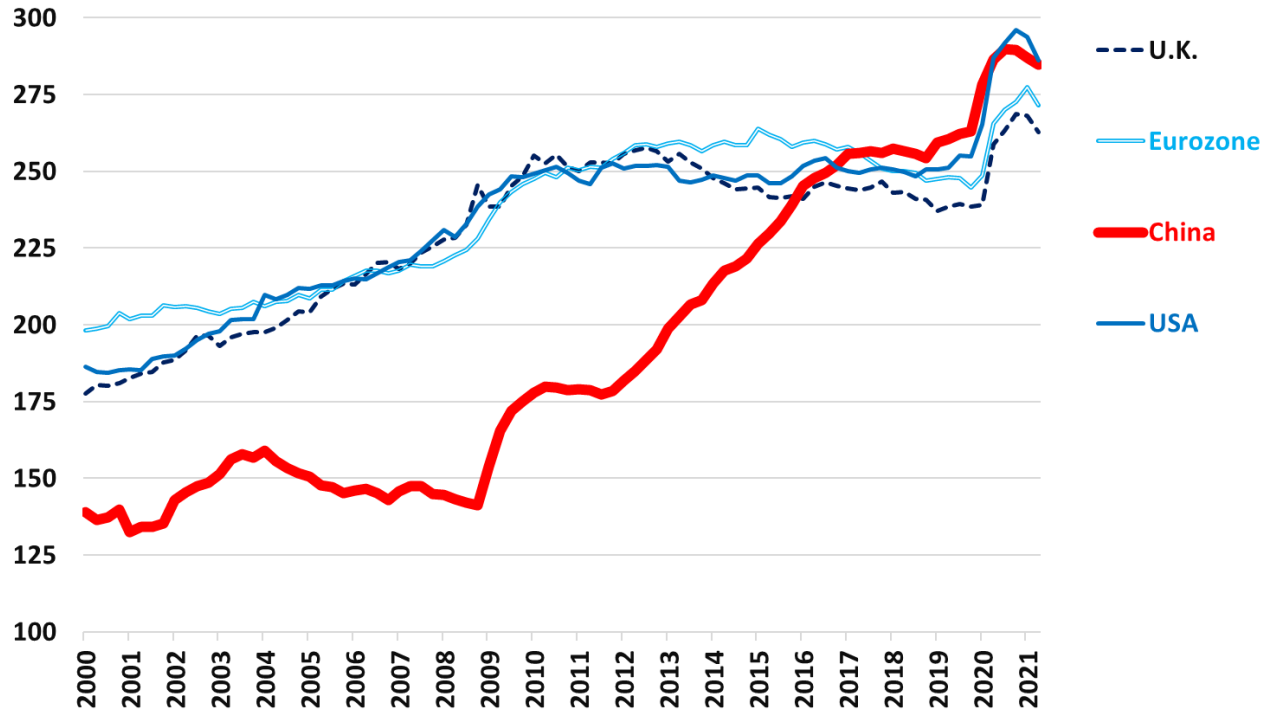


Source: Bloomberg Professional: (CHRRDEP, CNH and, pre-2011, CNY)



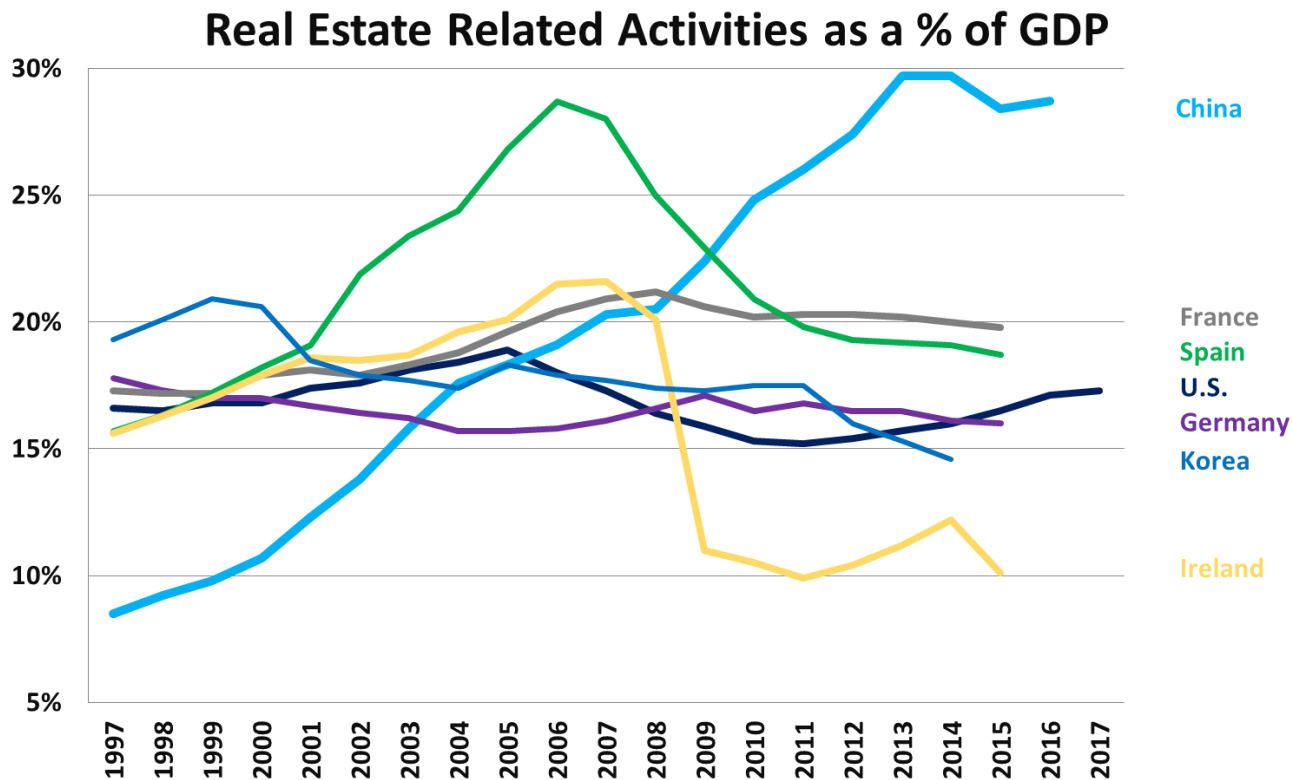
# China's Debt Levels Exceed Those of E.U. & U.S. Relative to GDP

## Public + Private Sector Debt to GDP Ratio



Source: Bank for International Settlements (BIS), <http://www.bis.org/statistics/totcredit.htm>

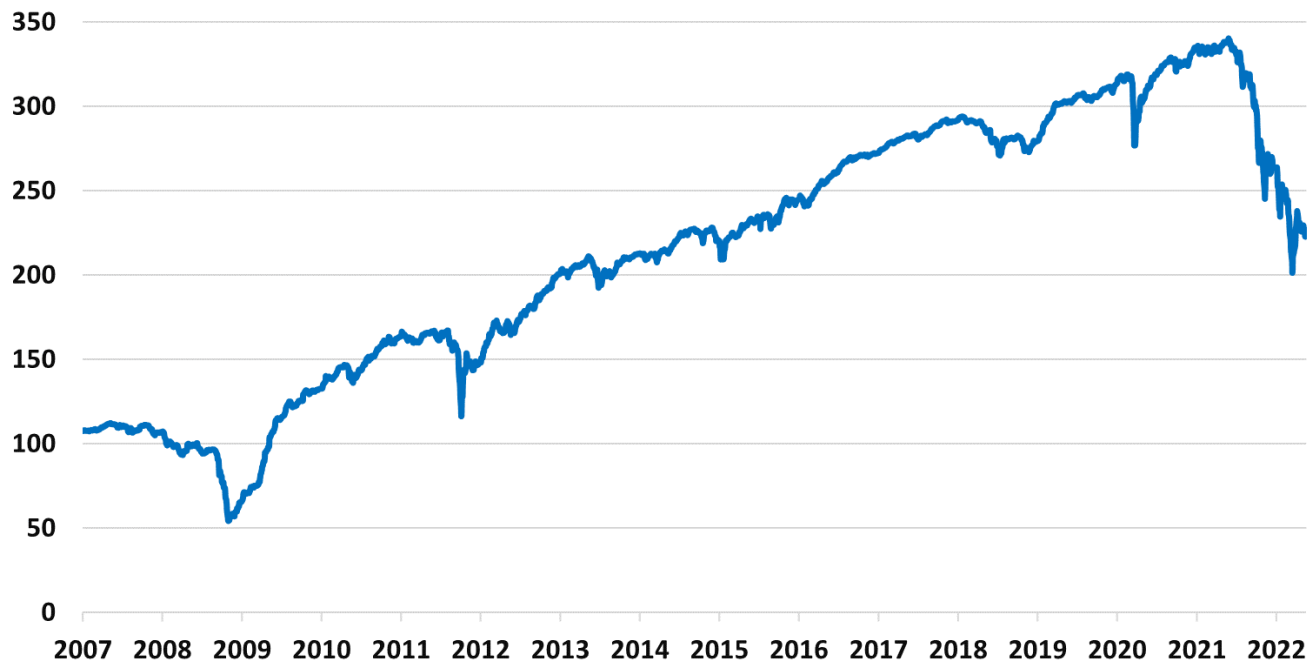
# China's Real Estate-Related Activity Was Close to 30% of GDP



Source: Rogoff and Yang, "China and the World Economy", Harvard University 2021

# China's High Yield Debt Market Is Collapsing

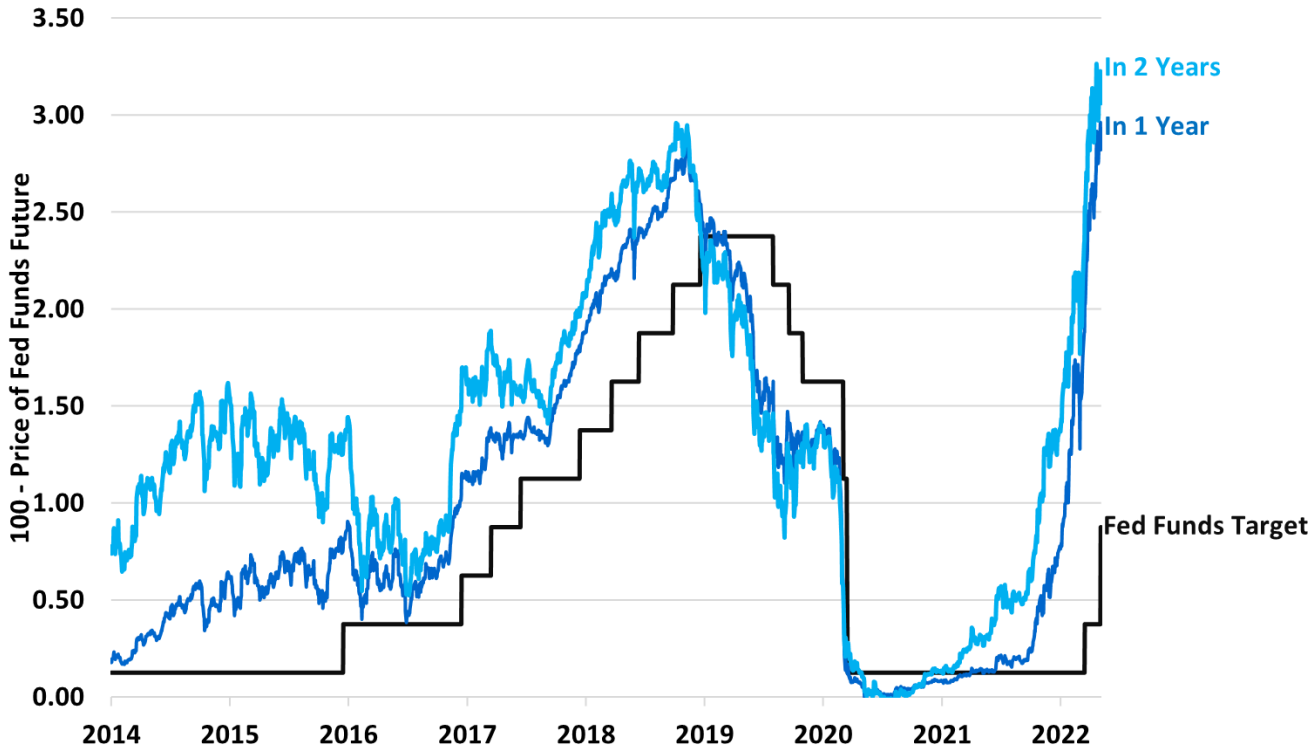
## Markit iBoxx USD China High Yield Total Return Index



Source: Bloomberg Professional (IBXXAJ32)

# Fed Fund Futures Price Fed Rates Most Likely Going to 3.25%.

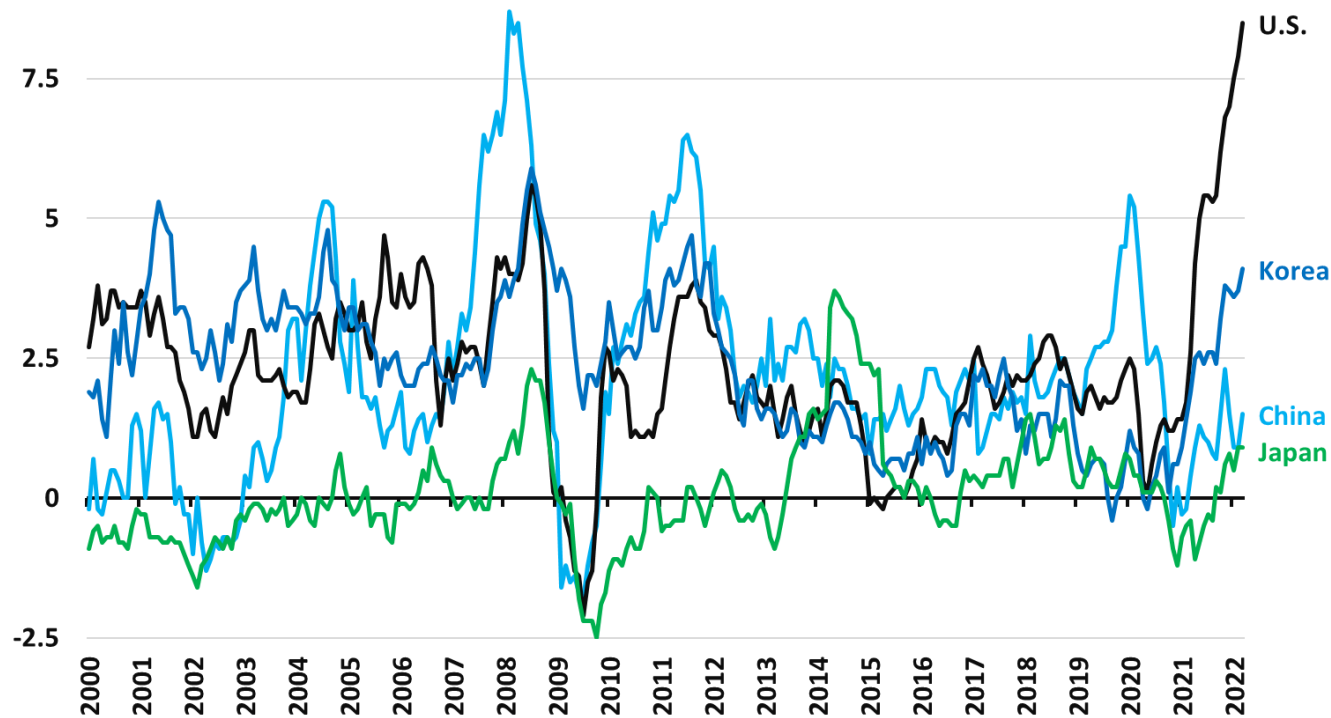
## Continuous Fed Funds Futures 1Y and 2Ys Out



Source: Bloomberg Professional (FDTRMID, FFZ15, FFZ16, FFZ17, FFZ18, FFZ9, FFZ0, FFZ1), CME Economic Research Calculations

# Asian Inflation Rates Haven't Risen As Much as in the U.S.

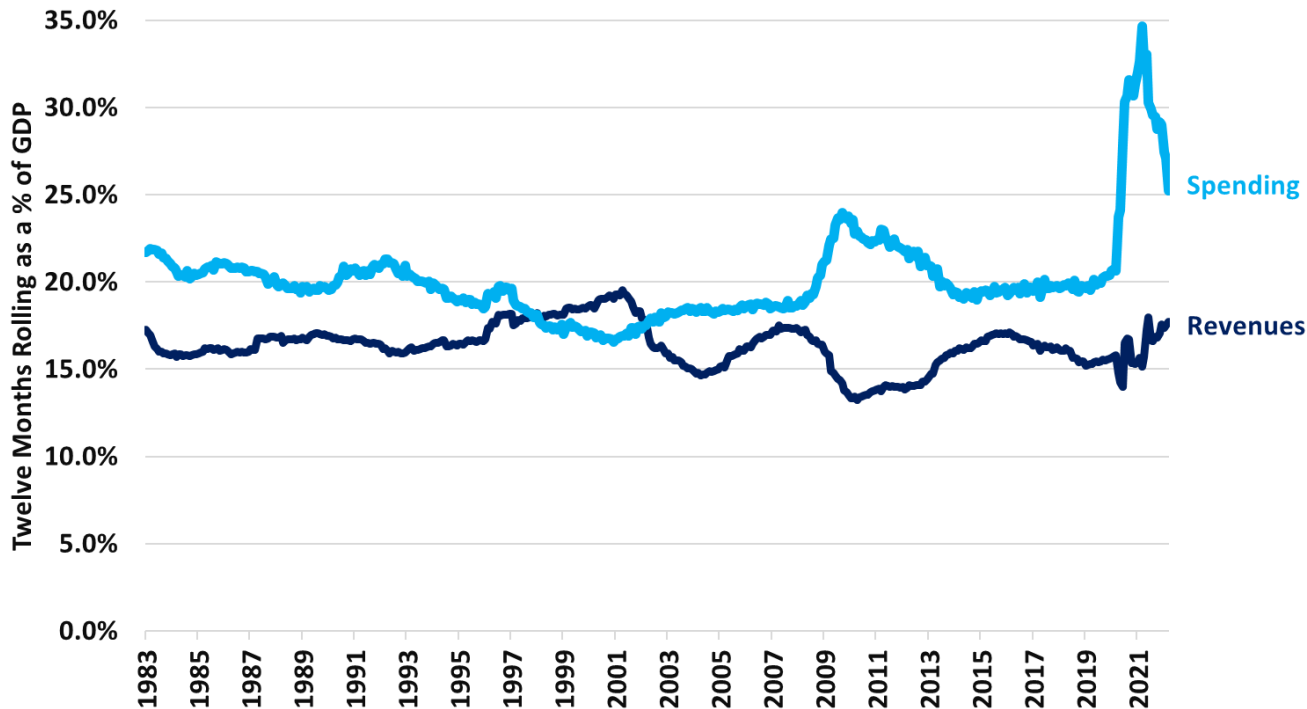
## Inflation: Year on Year Change in Consumer Prices



Source: Bloomberg Professional (CPI YOY, [KOCPIYOY](#), [JNCPIYOY](#) and [CNCPIYOY](#))

# Pandemic: Government Spending Rose from 21% to 35% of GDP

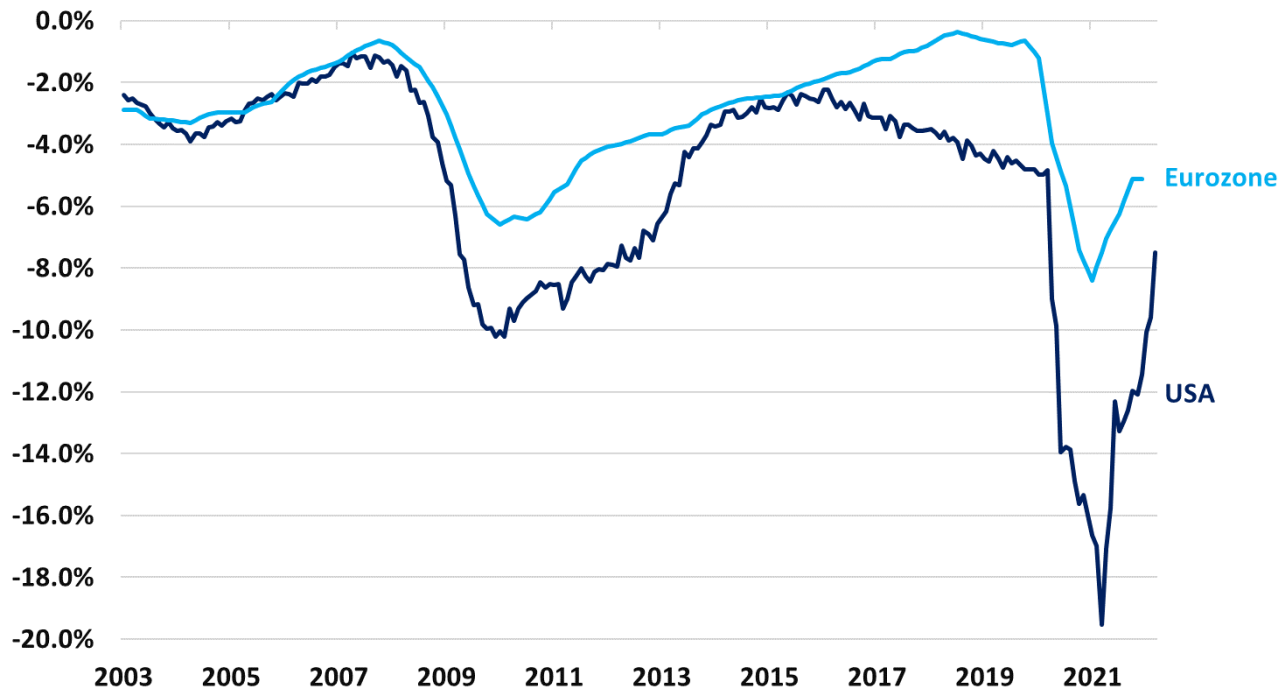
## Federal Spending and Federal Revenue



Source: Bloomberg Professional (FFSTCORP, FFSTIND, FFSTEMPL, FFSTEXC, FFSTEST, FFSTCUST, FFSTOTHR, GDP CUR\$, FDSSD), CME Group Economic Research Calculations

# The U.S. Did a Lot More Fiscal Stimulus Than Europe

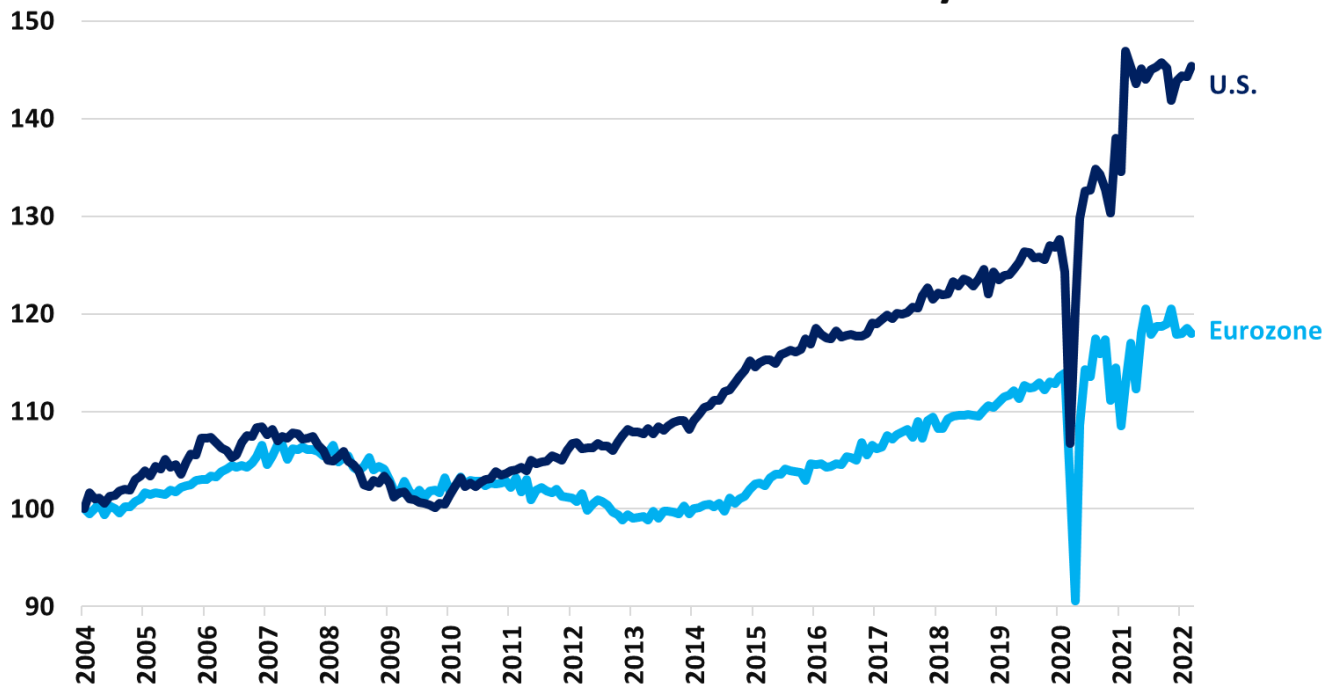
## Budget Deficits as a % of GDP



Source: Bloomberg Professional (EHBBEU, EHBBD, EUGDPE, ECOXEAS, FDDSSD, GDP CUR\$),  
CME Group Economic Research Calculations

# U.S. Consumer Spending Went Off the Charts

## U.S. Inflation Adjusted Retail Sales ex-Autos and Gas versus Eurozone Retail Sales by Volume

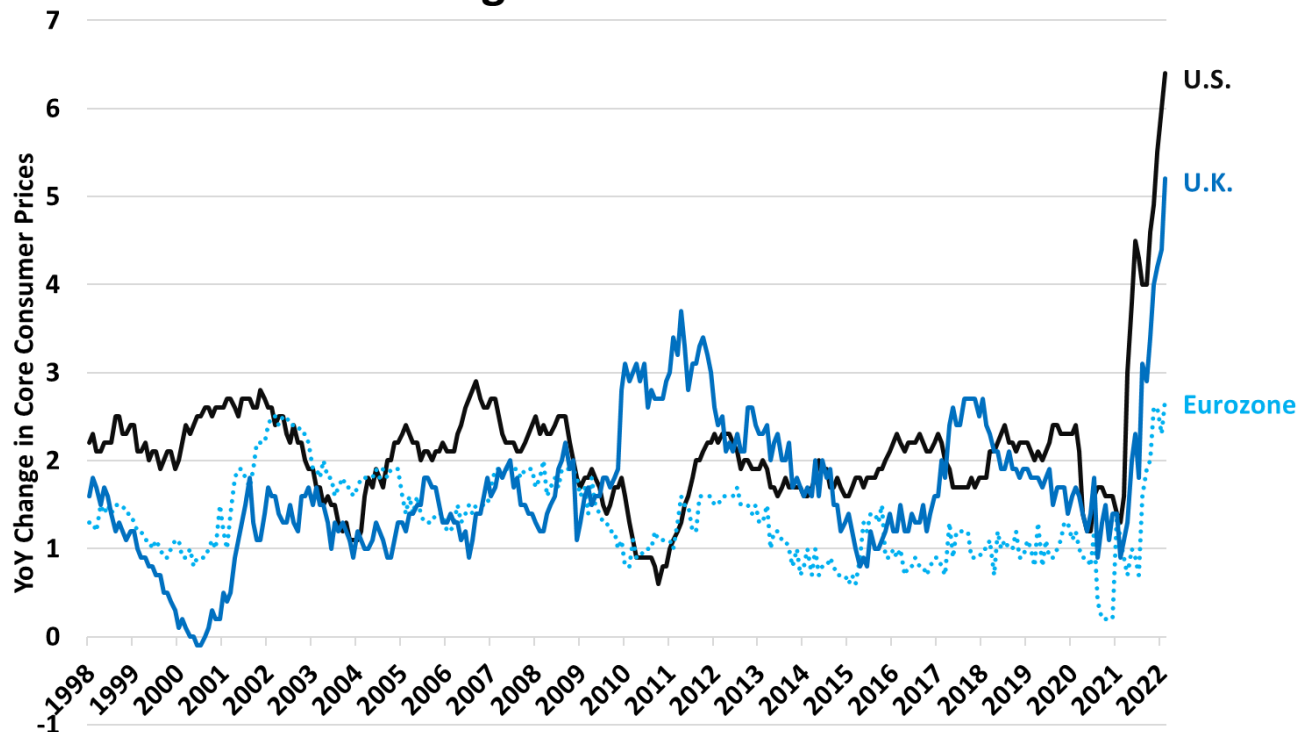


Bloomberg Professional (RSTAXXG, CPI INDX and [RSSAEMU](#))



# Surge in U.S. Core Inflation Far Exceeds that of Europe

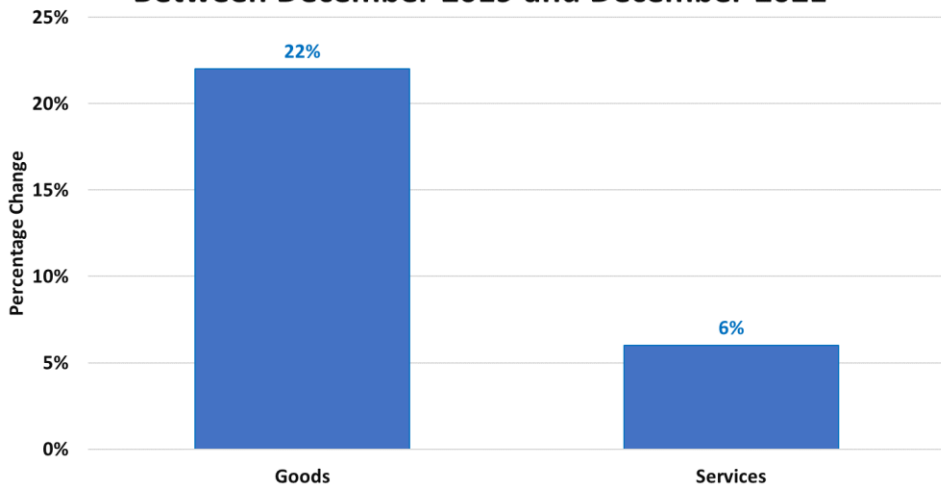
## YoY Change in Core Consumer Prices



Source: Bloomberg Professional (CPI XYOY, [UKHCA9IQ](#) and [CPEXEMUY](#))

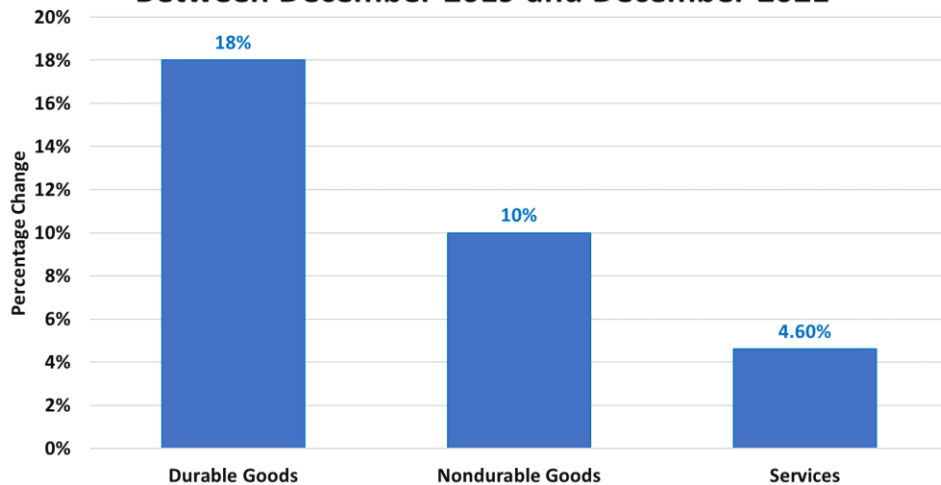
# Consumer Spending Shifted Towards Goods and Away From Services During the Pandemic & Goods Prices Rose Quickly

## Change in Consumer Spending Between December 2019 and December 2021



Source: St. Louis Federal Reserve FRED Database (PCES, PCENDG, PCEND)

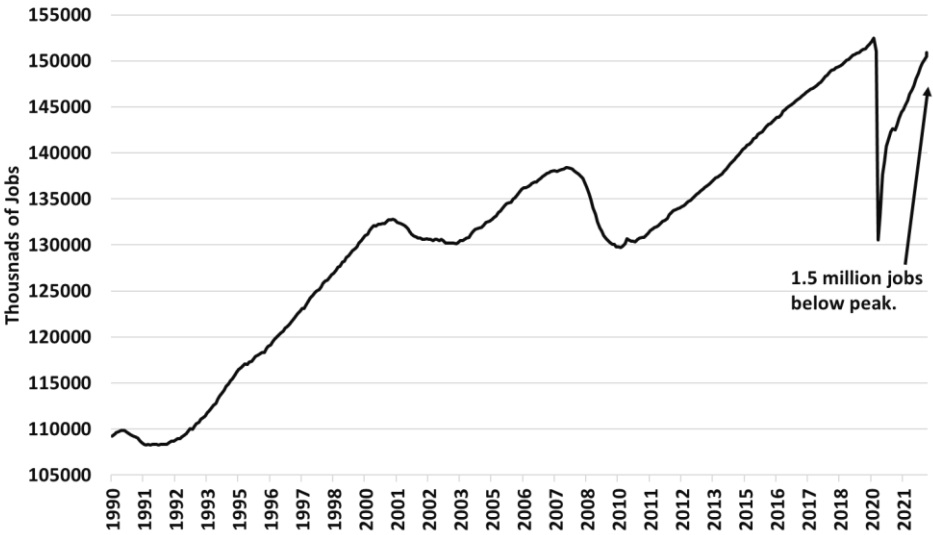
## Change in Consumer Prices Between December 2019 and December 2021



Source: St. Louis Federal Reserve FRED Database (CUSR0000SAD, CUSR0000SAN, CUSR0000SAS)

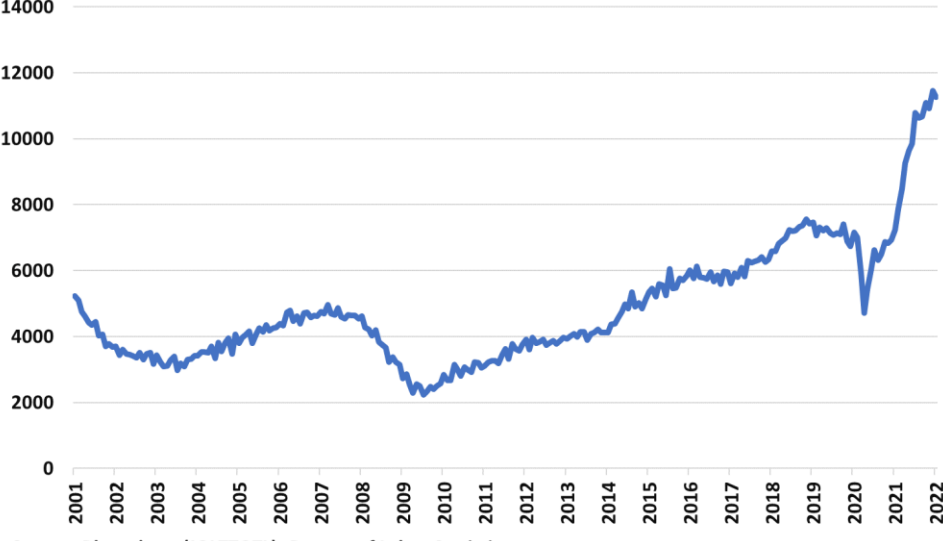
# U.S. Is 2.1 Million Below Peak Employment With 11.3 Million Job Openings.

### Non-Farm Payrolls: Private Sector Jobs



1.5 million jobs below peak.

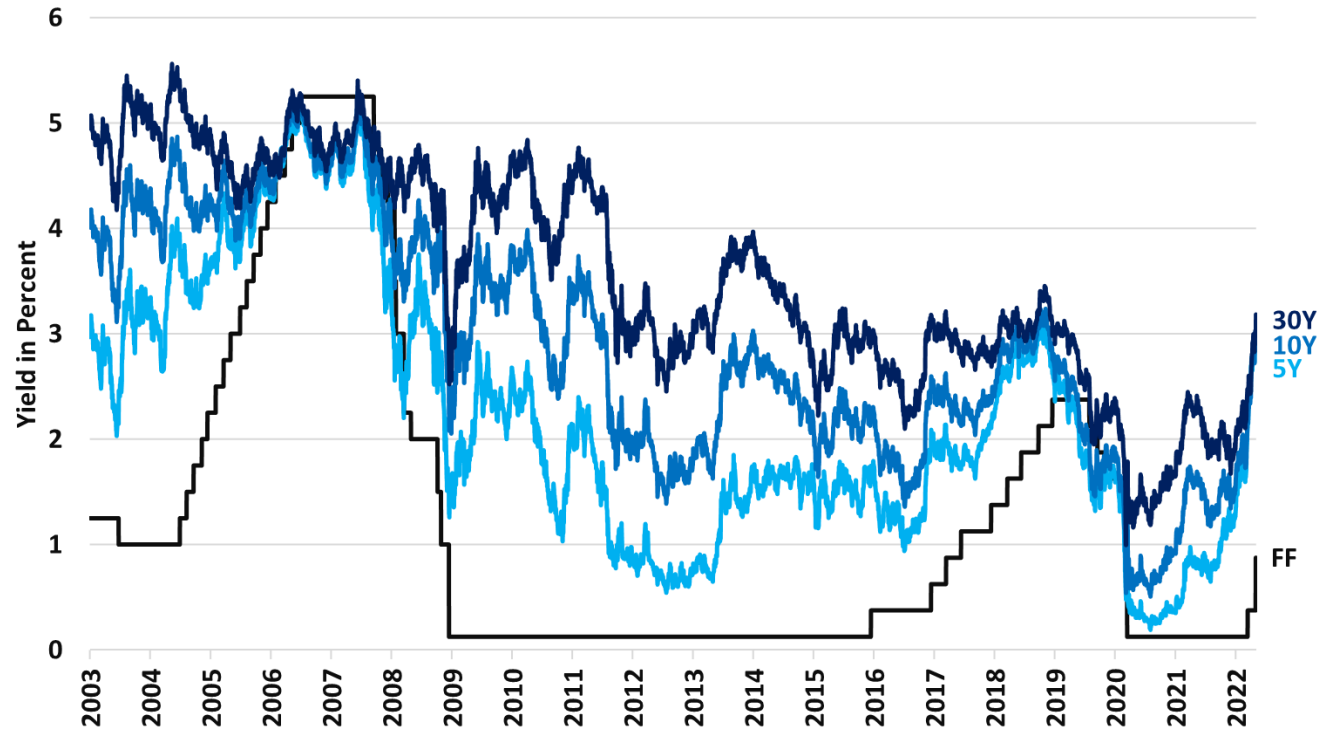
### U.S. JOLTS Job Openings and Labor Turnover



Source: Bloomberg (JOLTTOTL), Bureau of Labor Statistics

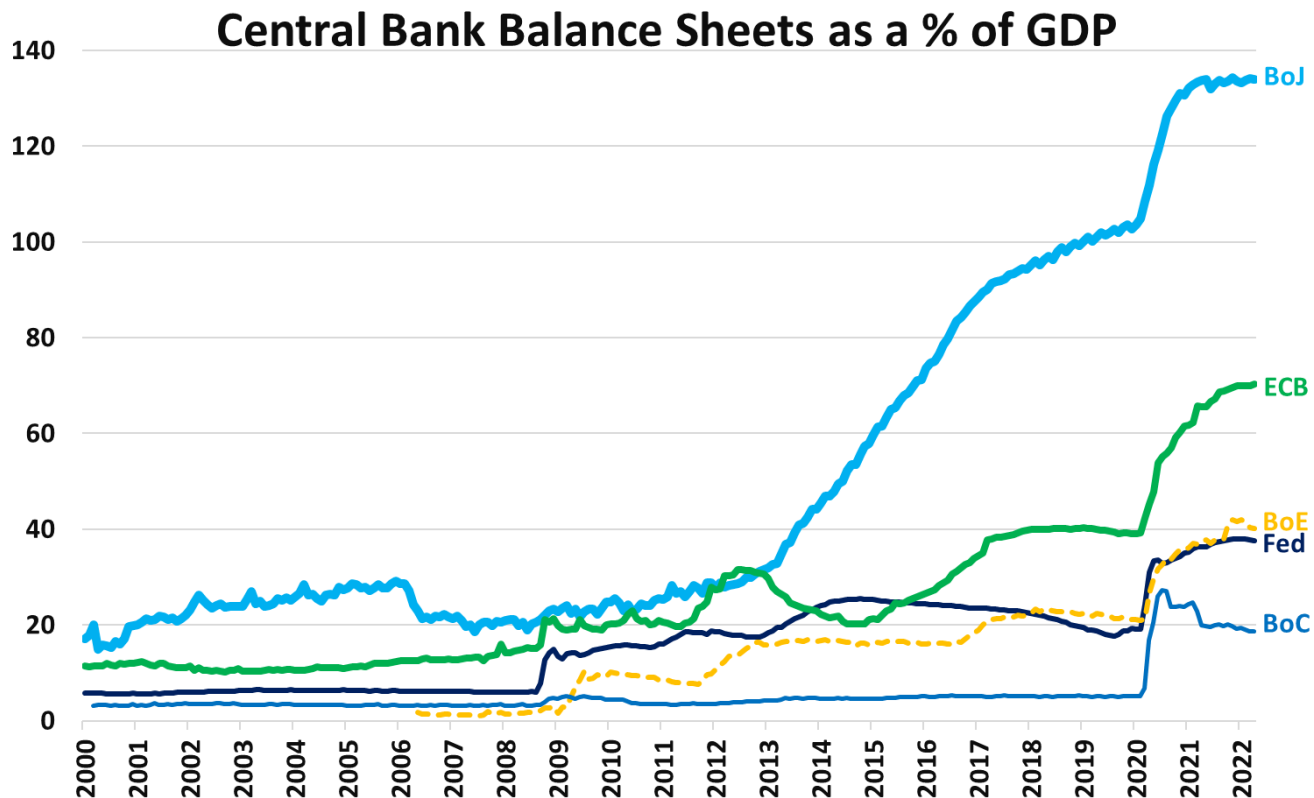
# Rising Long-Term Bond Yields Drive Up Mortgage Rates

## US: Fed Funds, 5Y, 10Y and 30Y Yields



Source: Bloomberg Professional (FDTRMID, USGG2Y, USGG5Y, USGG10Y and USGG30Y)

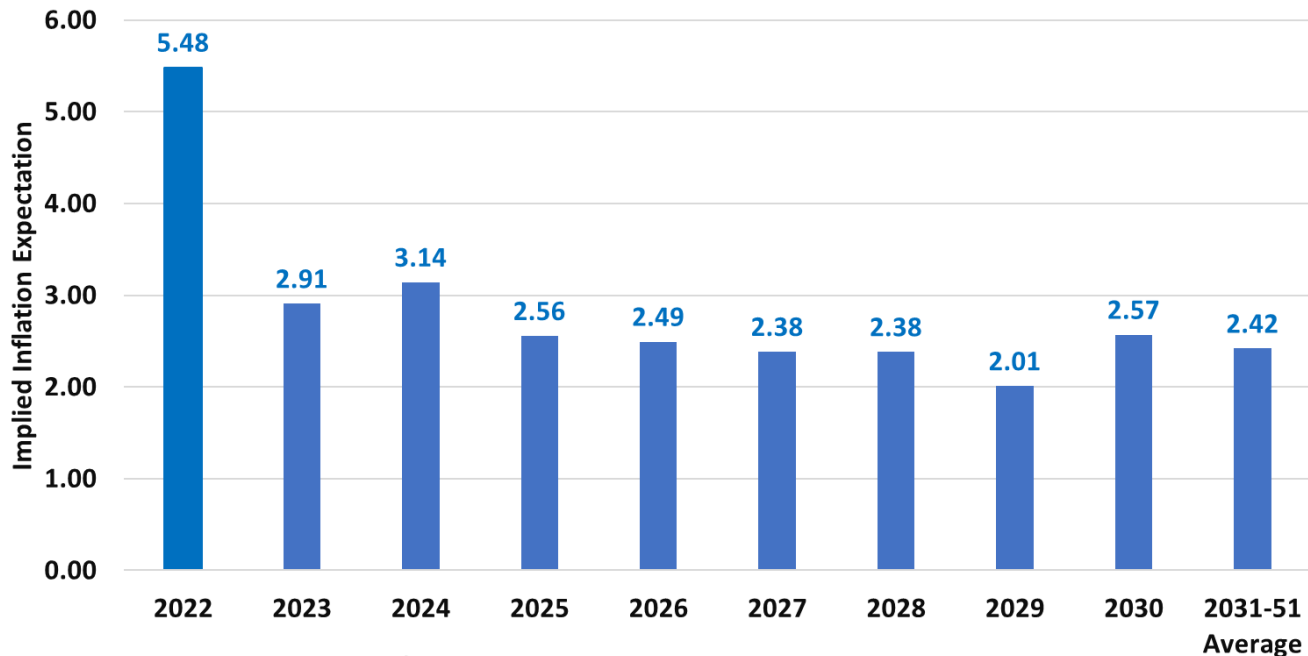
# Central Banks Will Soon Begin Shrinking Balance Sheets



Source: Bloomberg Professional (BSPGCPUS, BSPGCPEU, BSPGCPJP, BSPGCPGB)

# How Investors Price Inflation As of May 18, 2022

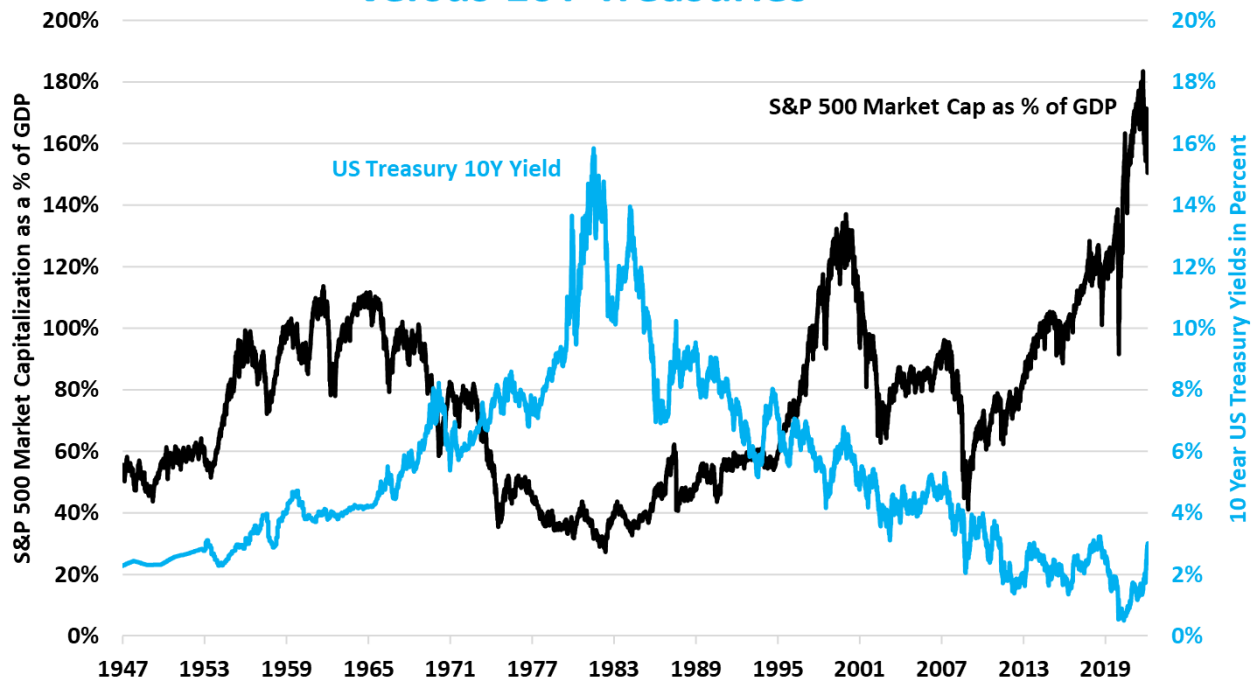
## Anticipated Inflation By Year From Break-Even (Standard U.S. Treasuries Yields - TIPS Yields)



Source: Bloomberg Professional (T Govt and TII Govt, TIPS and Nominal with January and February Maturities), CME Economic Research Calculations

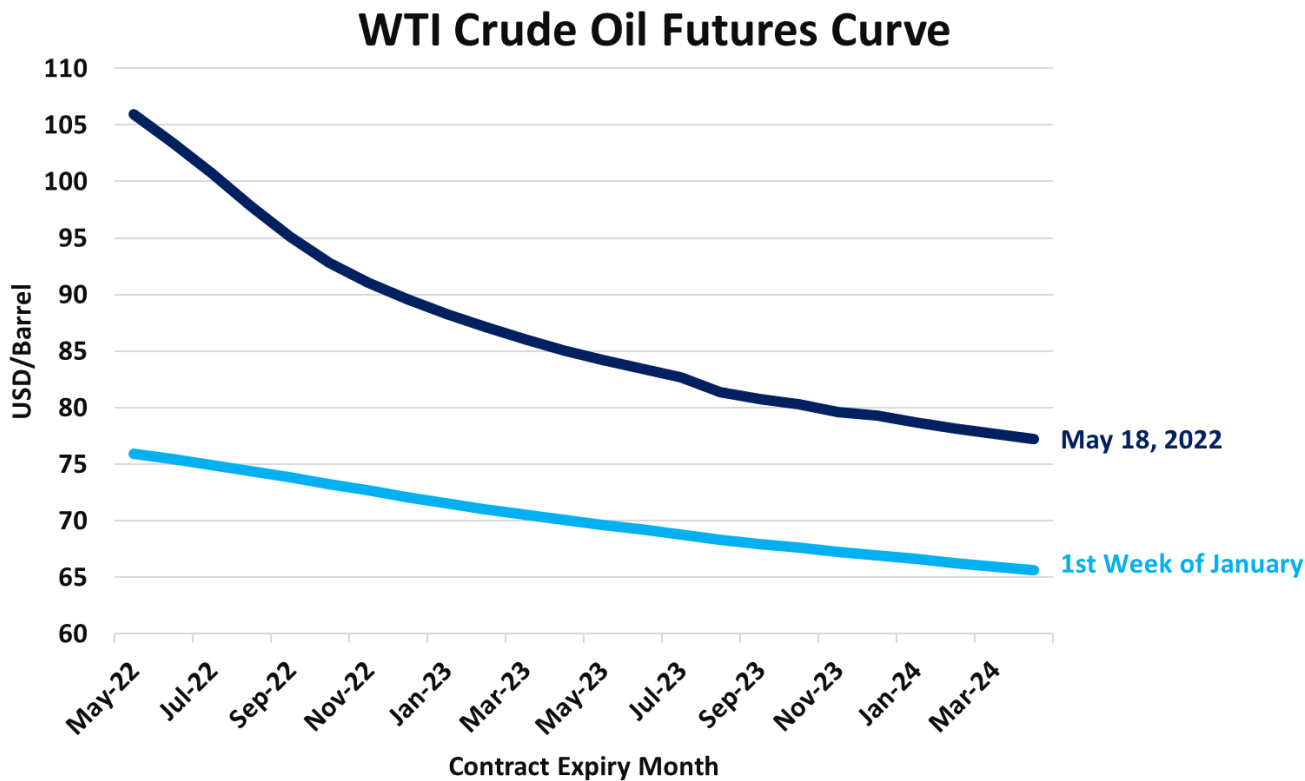
# Higher Yields Might Pose a Threat to Stocks

## S&P 500<sup>®</sup> Market Cap / Nominal US GDP versus 10Y Treasuries



Source: Bloomberg Professional (SPX, GDP CUR\$, USGG10YR), [www.multipl.com](http://www.multipl.com) for bond yields pre-1962.

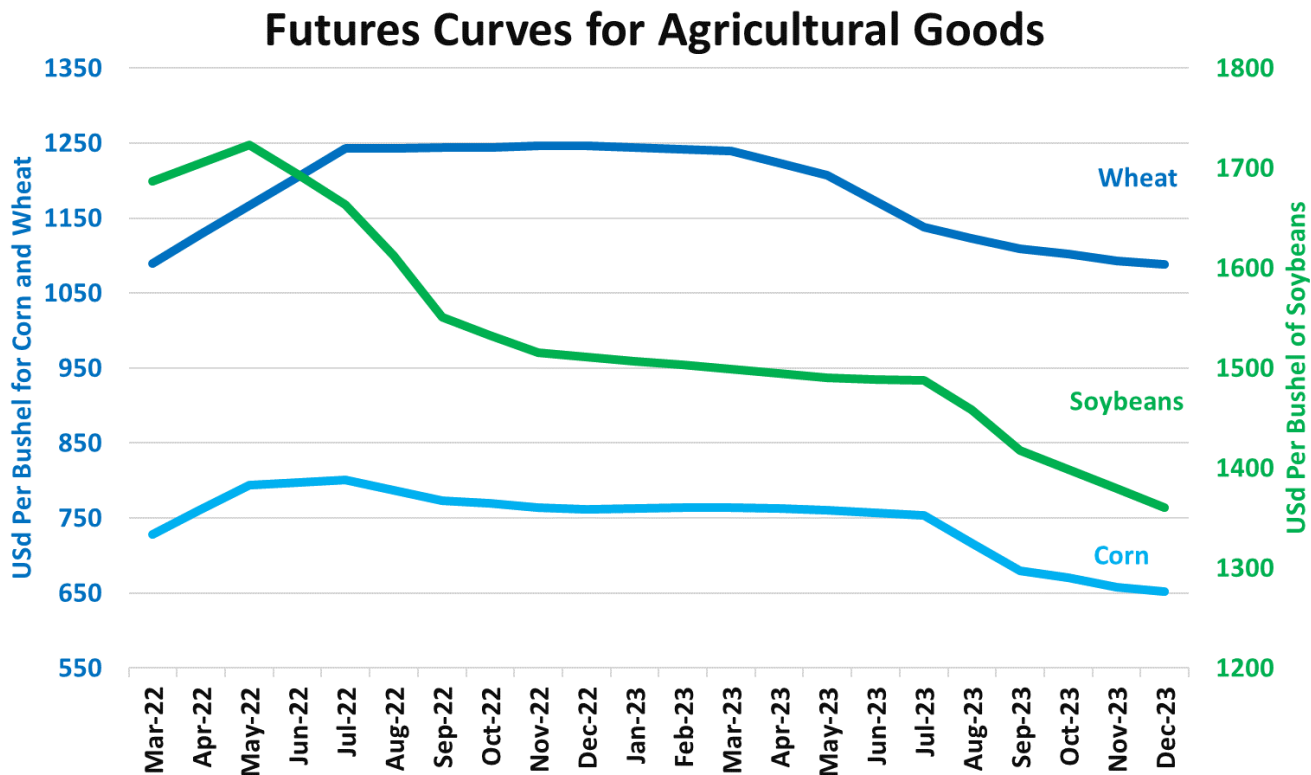
# Traders Price A Possibility of Lower Oil Prices in the Future



Source: Bloomberg Professional (CLA Comdty)



# Corn & Wheat Back Contracts No Longer Very “Backwarddated”



Source: Bloomberg Professional (C H2 ... C Z3, W H2 ... W Z3, S H2 ... S X3)

# Thank you

