



# METRIX

MASTERMINDS

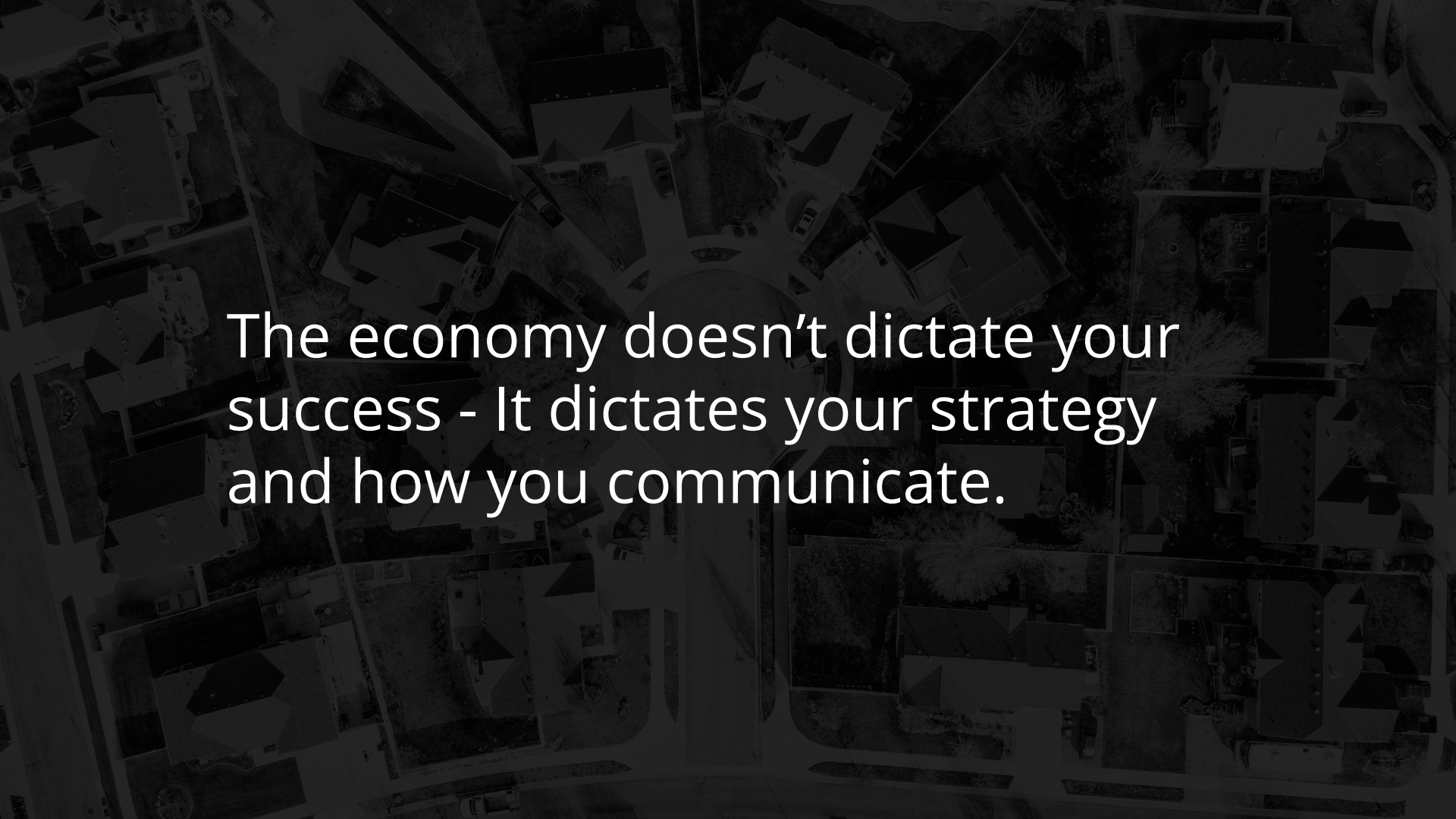
August 2023 | Scottsdale, Arizona

# Economic Update

**METRIX** 



# Economic Update

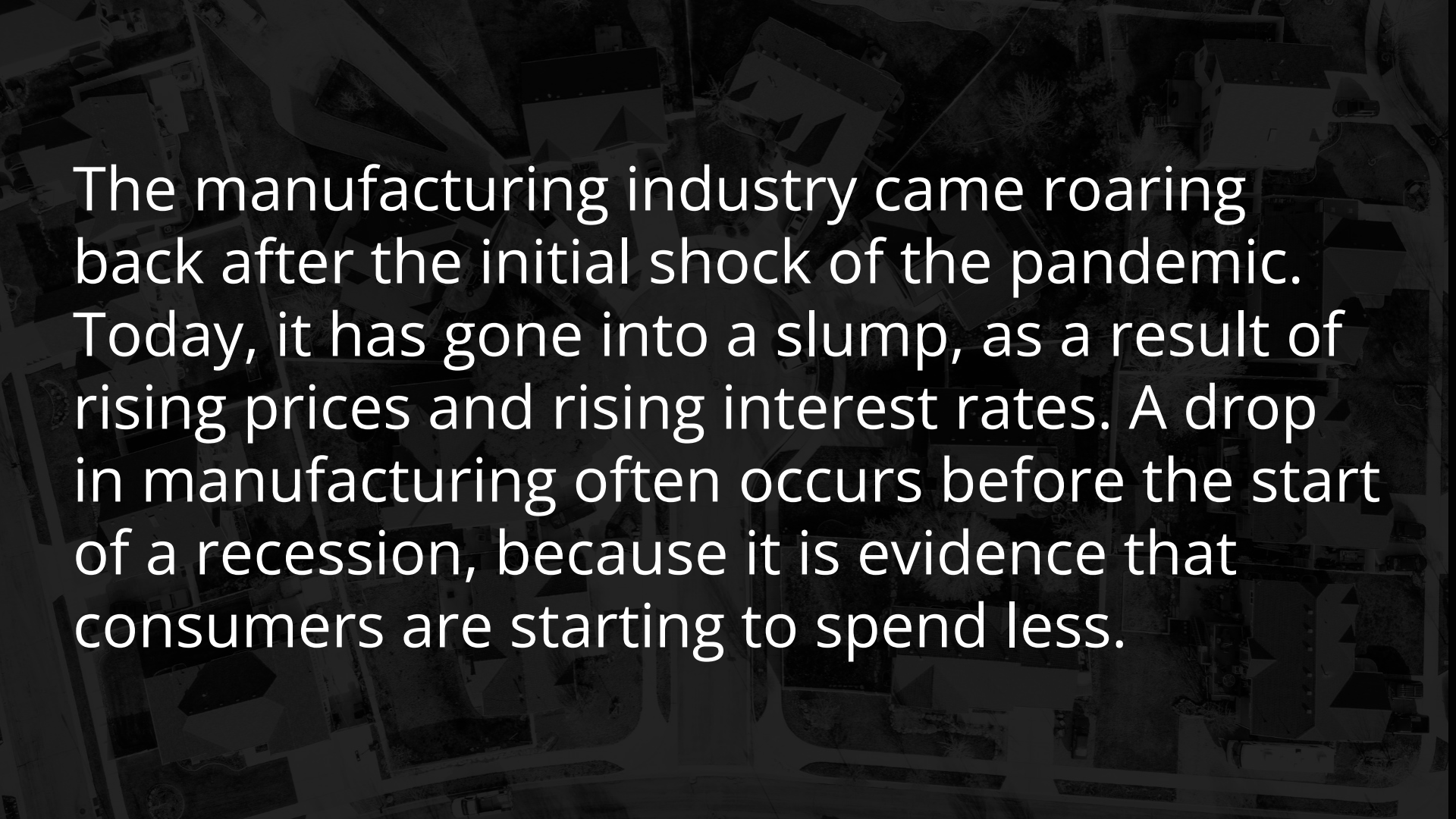
An aerial, top-down view of a residential neighborhood. The houses are arranged in a somewhat grid-like pattern with winding streets. The roofs are dark, and the surrounding areas are lighter, showing lawns and trees. The overall image is in grayscale and has a dark, semi-transparent overlay.

The economy doesn't dictate your success - It dictates your strategy and how you communicate.

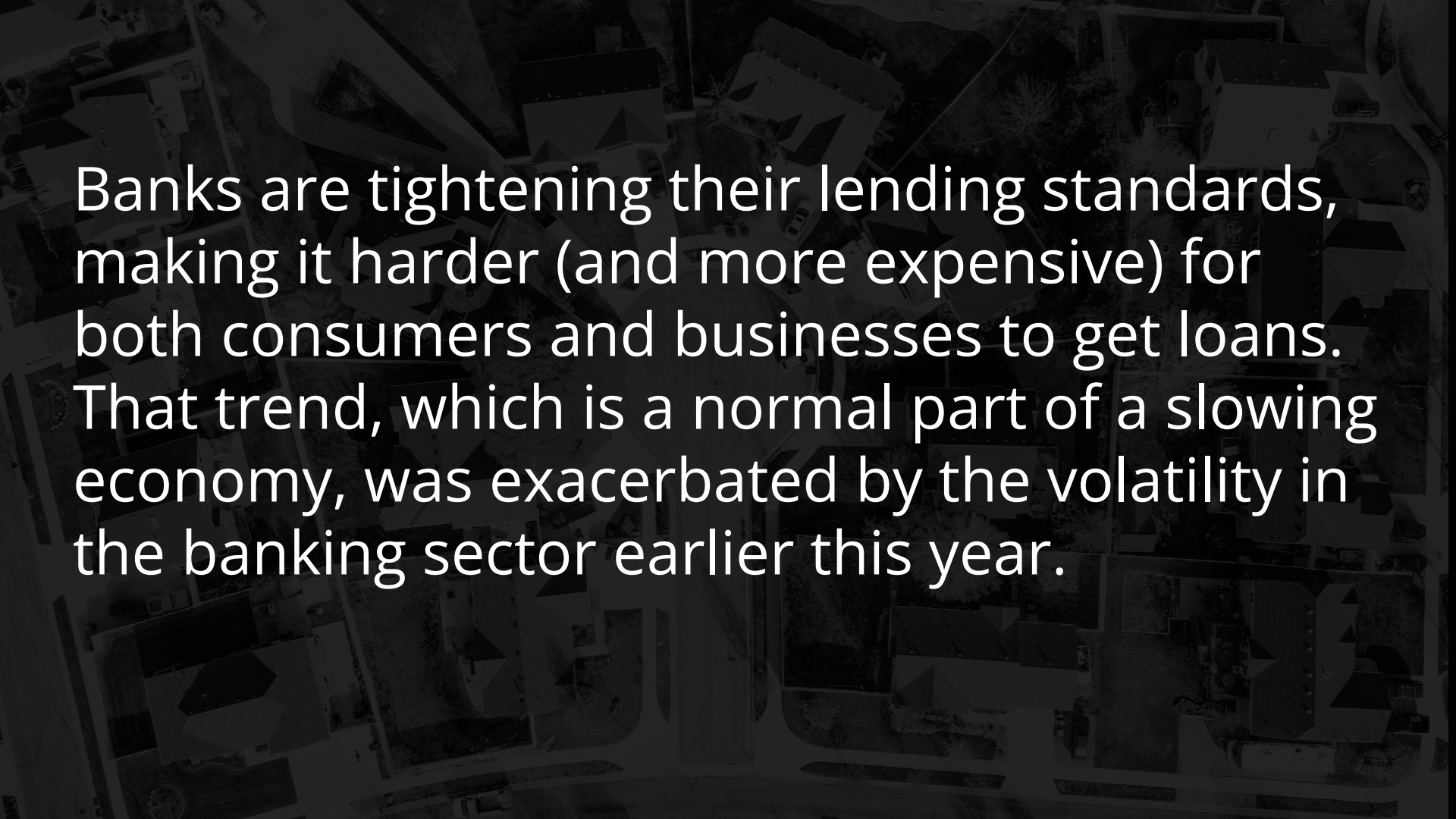
An aerial, grayscale photograph of a residential neighborhood. The image shows a central roundabout with several streets radiating outwards. The houses are arranged in a somewhat circular pattern around the roundabout. The overall tone is dark and moody, with the text overlaid in the center.

# Three Signs of Weakness

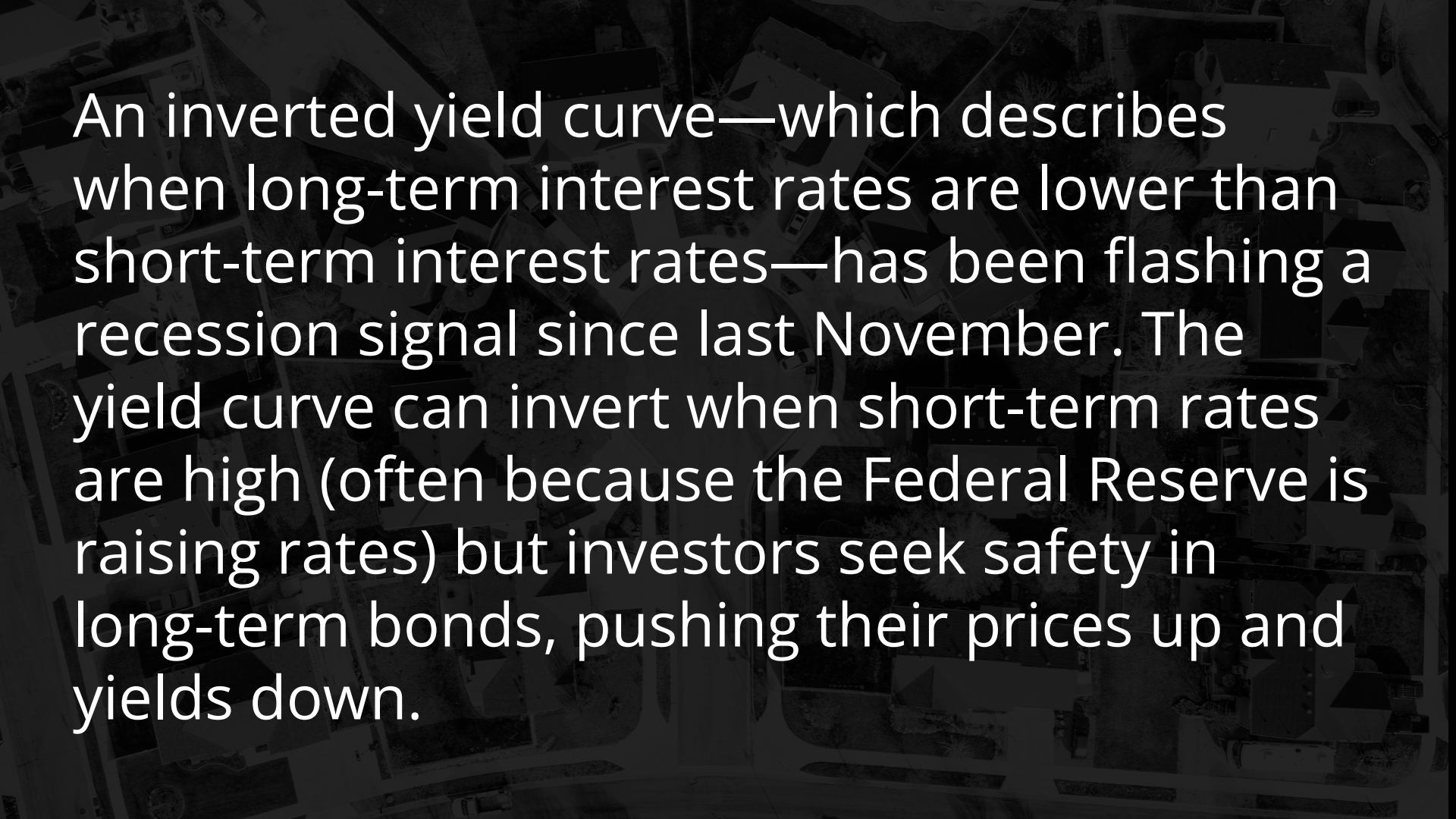


An aerial photograph of a residential neighborhood, showing a grid of streets and numerous houses with varying roof colors and styles. The image is in grayscale and serves as a background for the text.

The manufacturing industry came roaring back after the initial shock of the pandemic. Today, it has gone into a slump, as a result of rising prices and rising interest rates. A drop in manufacturing often occurs before the start of a recession, because it is evidence that consumers are starting to spend less.

An aerial photograph of a residential neighborhood, showing a grid of streets and numerous houses with varying roof colors and styles. The image is dark and serves as a background for the text.

Banks are tightening their lending standards, making it harder (and more expensive) for both consumers and businesses to get loans. That trend, which is a normal part of a slowing economy, was exacerbated by the volatility in the banking sector earlier this year.

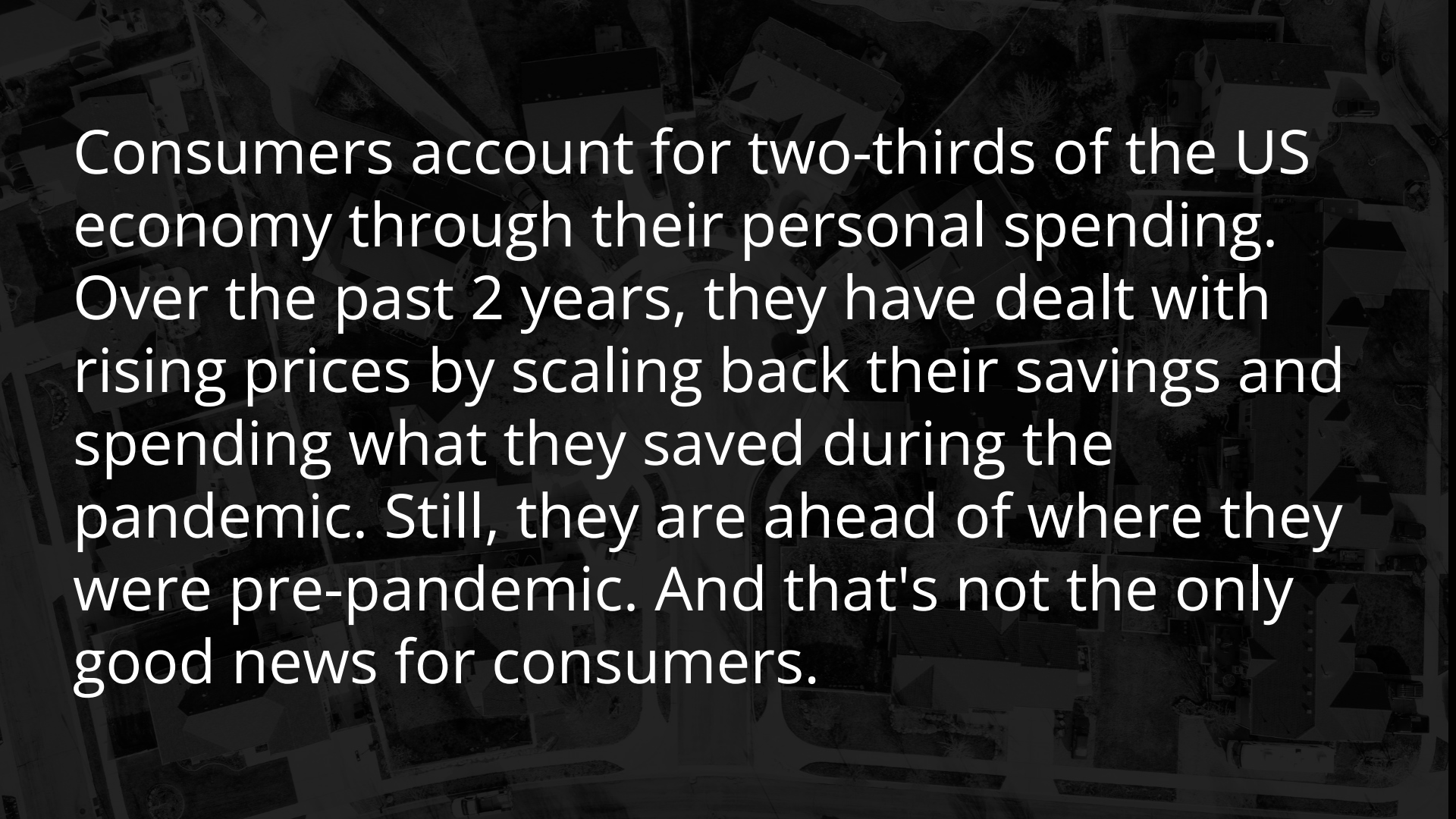
An aerial photograph of a city street grid, overlaid with a dark, semi-transparent layer. The text is centered on this background.

An inverted yield curve—which describes when long-term interest rates are lower than short-term interest rates—has been flashing a recession signal since last November. The yield curve can invert when short-term rates are high (often because the Federal Reserve is raising rates) but investors seek safety in long-term bonds, pushing their prices up and yields down.

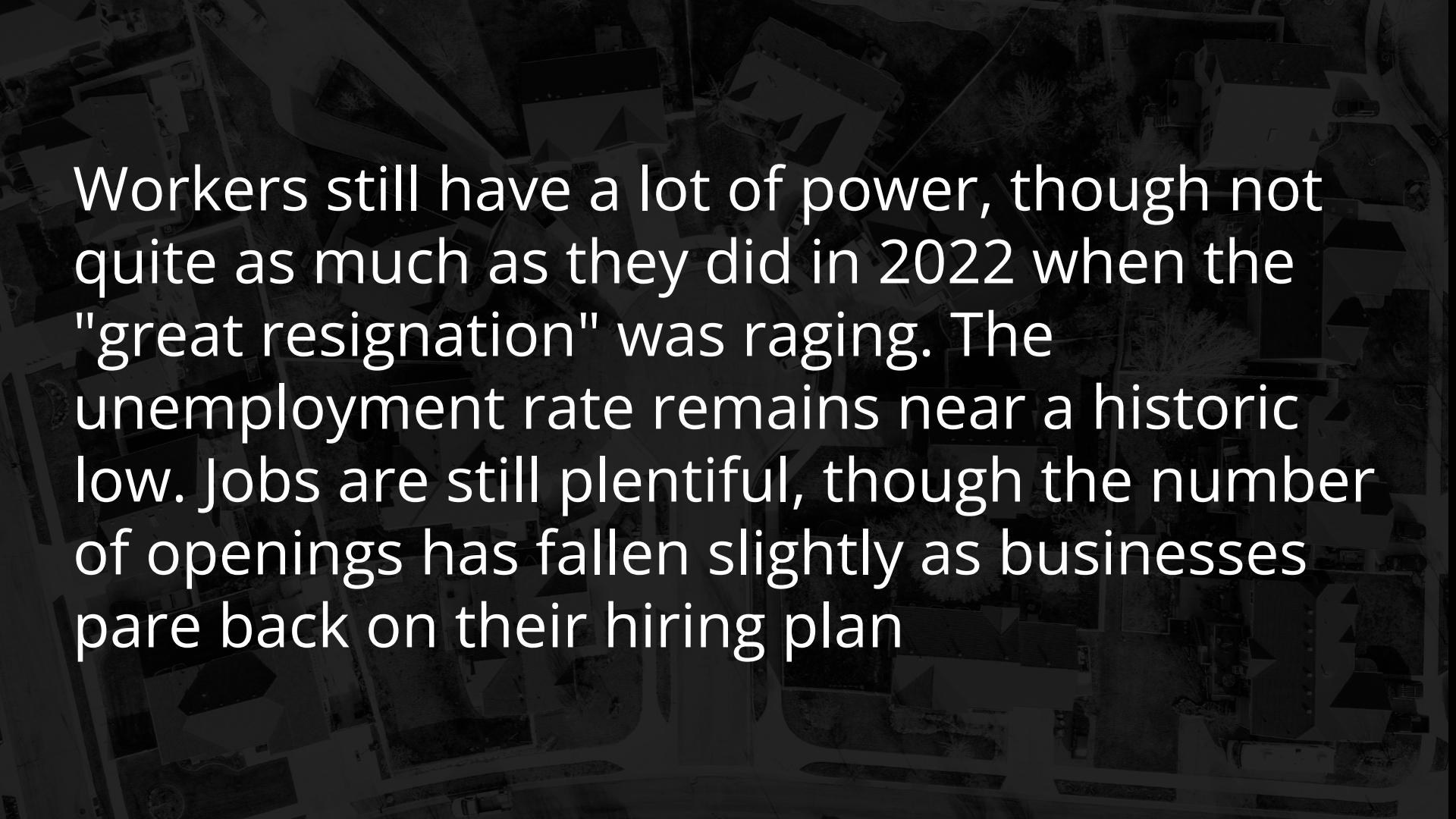


An aerial, top-down view of a residential neighborhood. The image is in grayscale and has a dark, semi-transparent overlay. In the center, there is a prominent roundabout with several roads radiating outwards. The surrounding area is filled with houses, some with large lawns, and trees. The overall scene depicts a well-developed suburban or rural community.

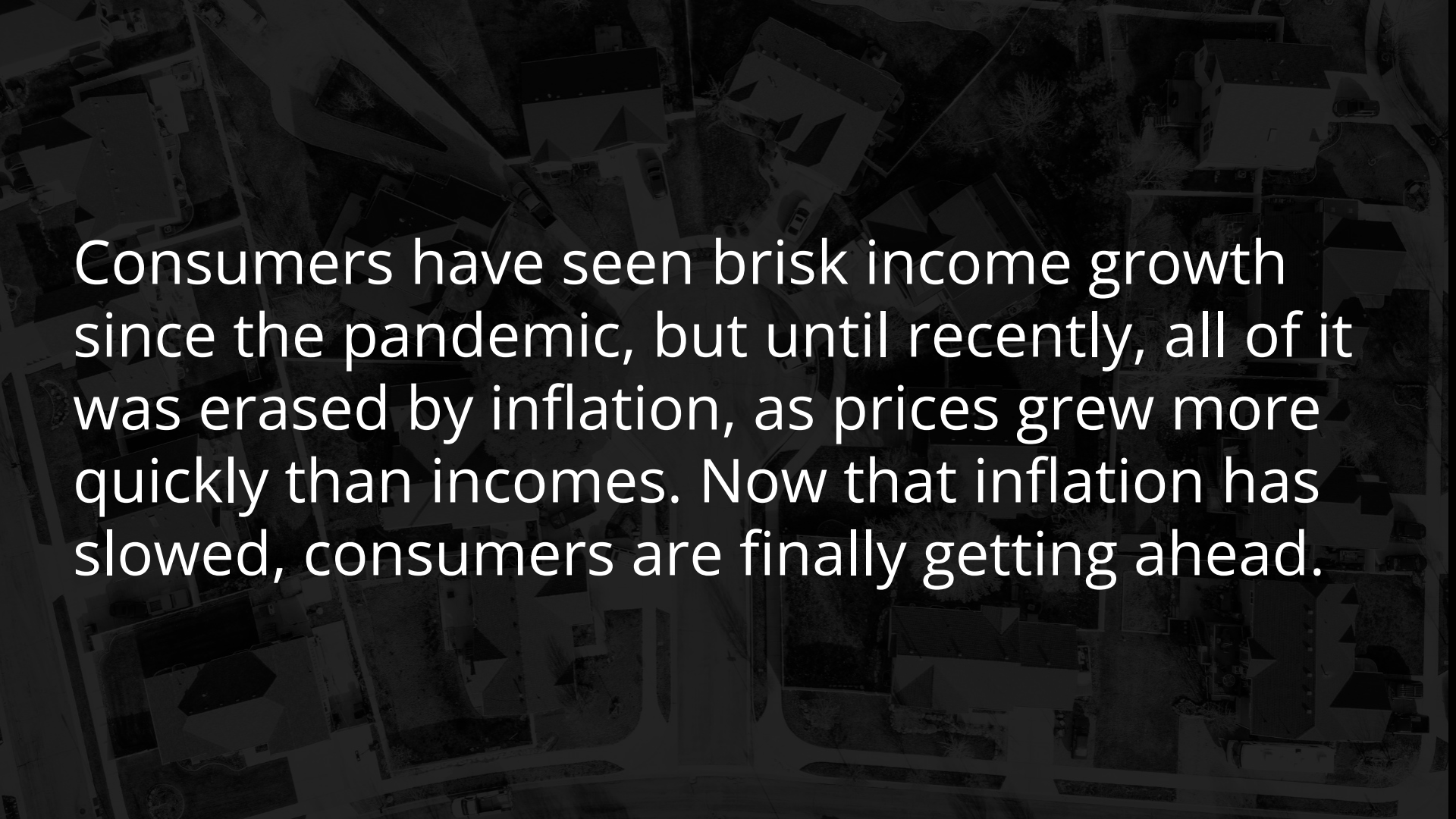
# Three Signs of Strength

An aerial photograph of a residential neighborhood, showing a grid of streets, houses with varying roof colors, and scattered trees. The image is in grayscale and serves as a background for the text.

Consumers account for two-thirds of the US economy through their personal spending. Over the past 2 years, they have dealt with rising prices by scaling back their savings and spending what they saved during the pandemic. Still, they are ahead of where they were pre-pandemic. And that's not the only good news for consumers.



Workers still have a lot of power, though not quite as much as they did in 2022 when the "great resignation" was raging. The unemployment rate remains near a historic low. Jobs are still plentiful, though the number of openings has fallen slightly as businesses pare back on their hiring plan

An aerial, top-down view of a residential neighborhood. The houses are arranged in a grid-like pattern with streets and driveways visible. The image is in grayscale and has a dark, semi-transparent overlay, making it suitable for text placement.


Consumers have seen brisk income growth since the pandemic, but until recently, all of it was erased by inflation, as prices grew more quickly than incomes. Now that inflation has slowed, consumers are finally getting ahead.



An aerial, top-down view of a residential neighborhood. The houses are arranged around a central road that curves through the middle. The houses have dark roofs and are surrounded by greenery and trees. The overall scene is in grayscale, with the text 'GDP' overlaid in white.

**GDP**





Real Gross Domestic Product (GDP) In the second quarter of 2023, real GDP growth accelerated to 2.4 percent at an annual rate, picking up from a 2.0 percent gain in the first quarter.

# We Expect Global Growth to Slow to Below-Trend Levels

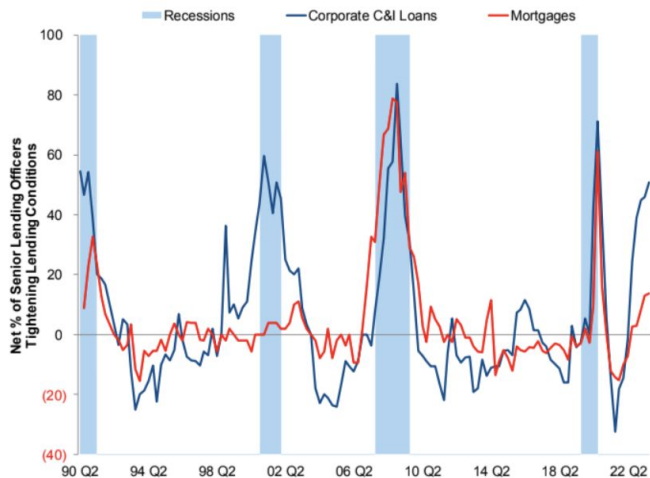
Real GDP Outlook – As of July 31, 2023

Percent Change YoY	2023 Projections		
	ISG	GIR	Consensus
<b>US</b>	2.1	2.1	1.6
<b>Euro Area</b>	0.5	0.6	0.5
<b>Japan</b>	1.1	1.3	1.3
<b>UK</b>	0.1	0.3	0.2
<b>China (?)</b>	5.4	5.4	5.2
<b>Russia</b>	-0.4	2.0	0.5
<b>World</b>	2.9	3.0	2.6

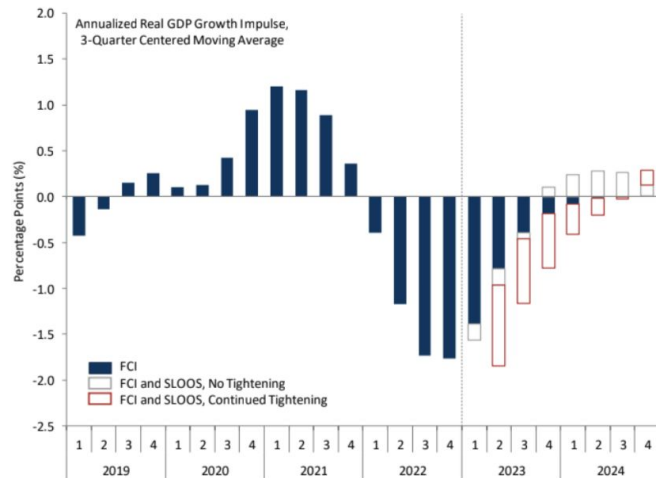
Note: All forecasts calculated on calendar year basis.

# Slower Bank Lending to Weigh on GDP Growth

## 1. Net Share of Senior Loan Officers Tightening Lending Conditions for Corporate Loans and Mortgages (%)



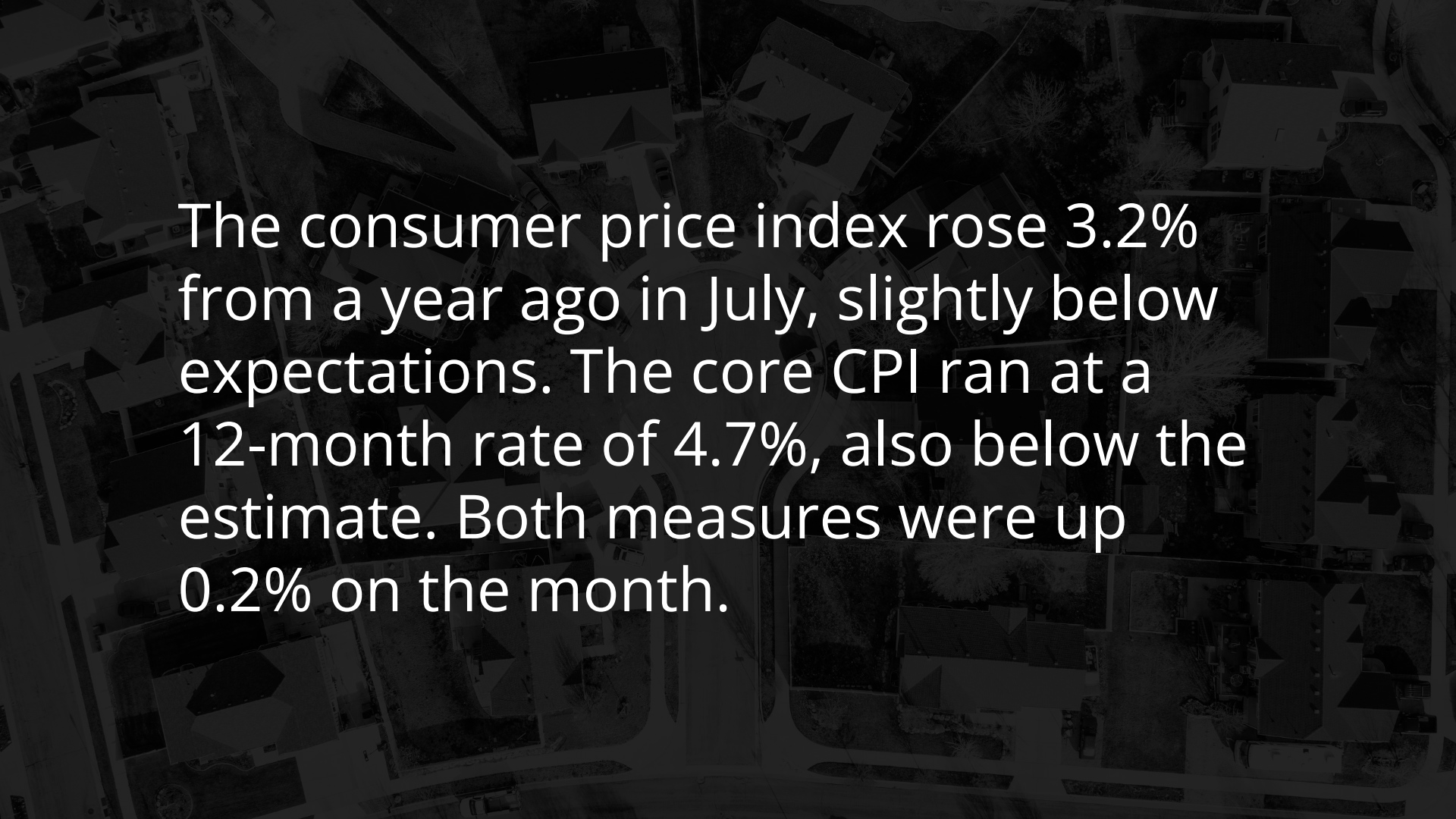
## 2. Impact of Additional Tightening in Lending Standards on GDP Growth



- Lending conditions across a variety of loans have continued to tighten during Q2, as evidenced by the share of senior loan officers tightening lending conditions across mortgages, C&I loans and commercial real estate and was likely accelerated by the regional banking crisis.
- Global Investment Research projects a 0.4-0.5% impact to GDP from further tightening of lending conditions. This is an incremental impact above the lagged impact of financial condition tightening seen in recent quarters which is included in their forecasts.

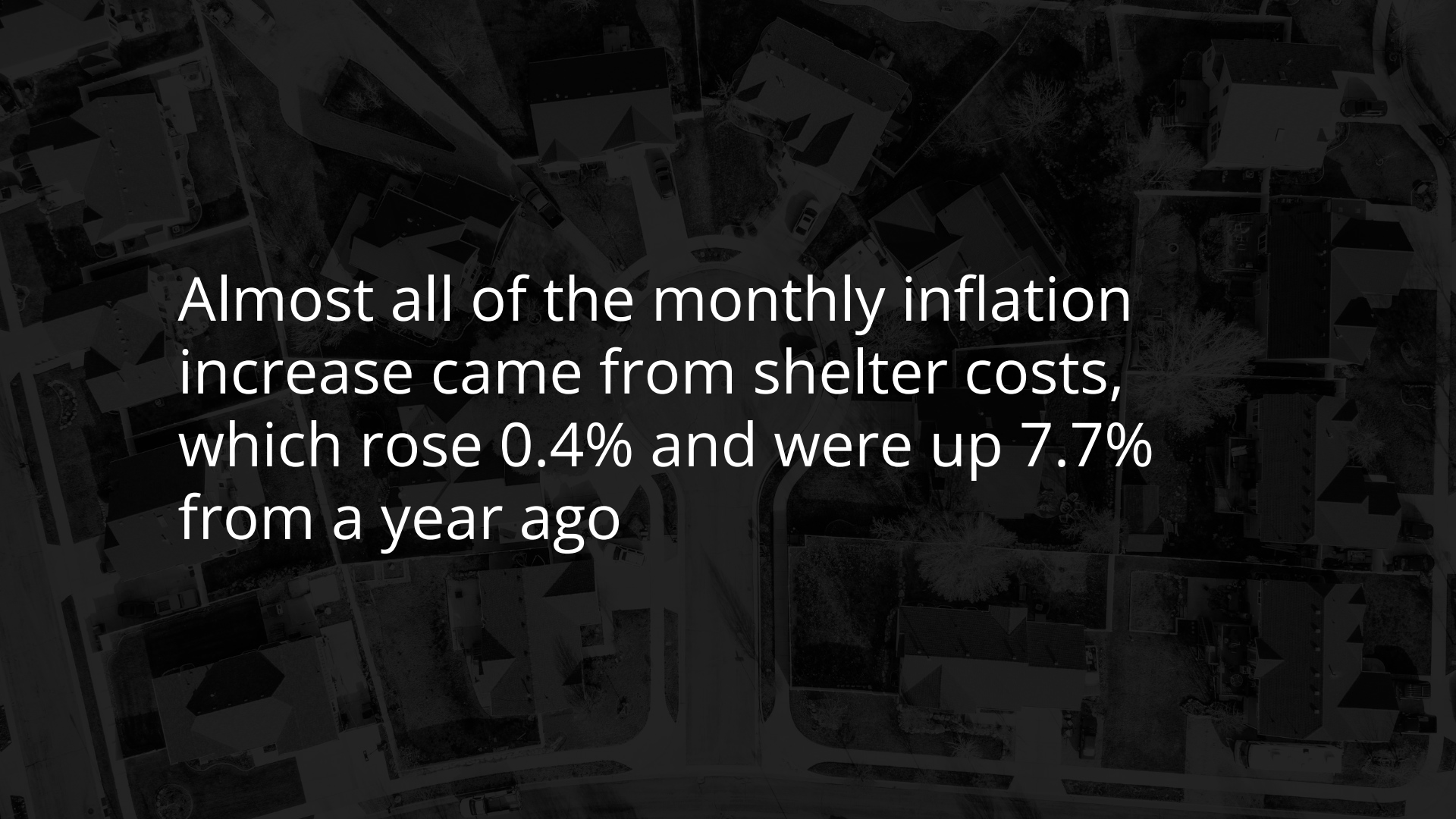


# Inflation

An aerial photograph of a residential neighborhood, showing various houses with different roof shapes and colors, streets, and some greenery. The image is dark and serves as a background for the text.

The consumer price index rose 3.2% from a year ago in July, slightly below expectations. The core CPI ran at a 12-month rate of 4.7%, also below the estimate. Both measures were up 0.2% on the month.

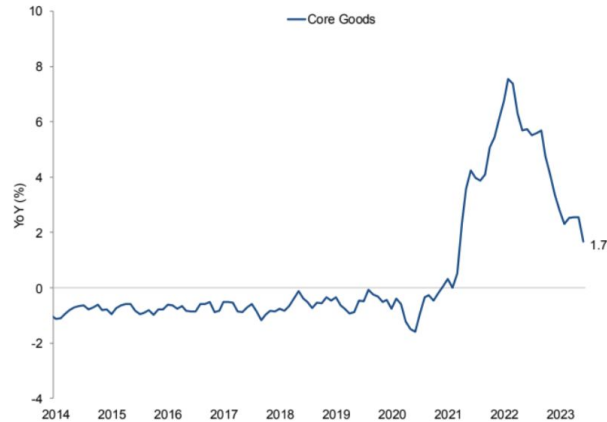




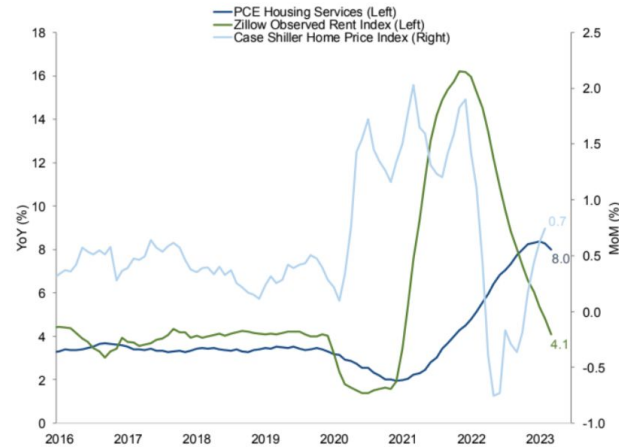
Almost all of the monthly inflation increase came from shelter costs, which rose 0.4% and were up 7.7% from a year ago

# Inflation over Time

## 1. US Core PCE Goods Inflation – Through June 2023



## 2. US Market Rents and PCE Housing Services Inflation – Through June 2023\*



- CPI rent and owners' equivalent rent (OER) measures use 6-month changes in average rent growth facing all occupants. These measures tend to move more slowly than private sector rent measures such as Zillow and CoreLogic, which only track rent growth facing new tenants.
- Rent and OER represent 44% of core CPI.
- Housing represents 17% of core PCE.

\* Case Shiller Data through May.

Source: Investment Strategy Group, Bureau of Economic Analysis, Bureau of Labor Statistics, Federal Reserve Estimates.

# We Expect Inflation to Moderate But Remain at Elevated Levels in 2023

Inflation Outlook – As of July 31, 2023

Percent Change yoy (annual average*)	Headline		Core (excludes food and energy)	
	2023 Proj.		2023 Proj.	
	ISG	GIR	ISG	GIR
<b>US*</b>	3.1	2.8	4.1	3.8
<b>Euro Area</b>	5.5	5.4	5.1	5.1
<b>Japan</b>	3.0	3.1	3.0	3.0
<b>UK</b>	7.7	7.2	6.6	6.4
<b>China</b>	0.3	0.4	0.8	0.7

\* US projections are Q4/Q4

An aerial, grayscale photograph of a residential neighborhood. The houses are arranged in a somewhat circular pattern around a central road. The word "Jobs" is written in a large, white, sans-serif font in the center of the image, overlaid on the road and surrounding houses. The overall tone is dark and monochromatic.

**Jobs**

An aerial photograph of a residential neighborhood, showing various houses with different roof shapes and colors, streets, and some greenery. The image is dark and serves as a background for the text.

Job growth in July was less than expected, pointing to a slower pace in the U.S. economy though perhaps not a long-anticipated recession, the Labor Department reported Friday.

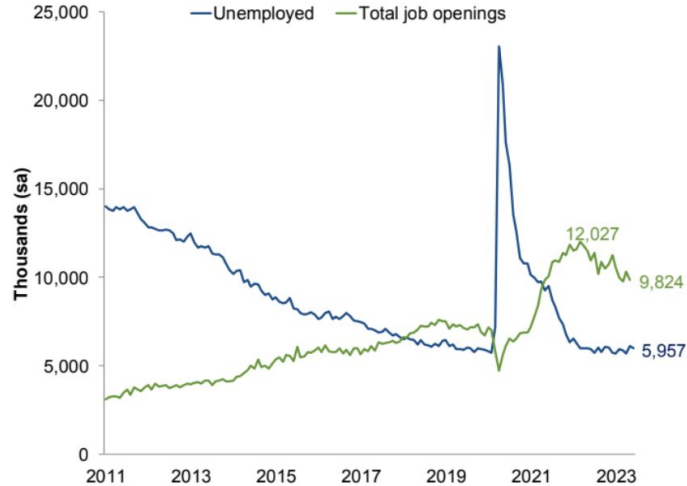


# Inflation Risks

## 1. Wage Growth Indicators – Through June 2023<sup>1</sup>



## 2. Unemployed vs. Job Openings Data – Through June 2023<sup>2</sup>



- Average Hourly Earnings (AHE) increased to 4.4% YoY in June from 4.3% in May. On a 3-month moving average basis, the year-on-year change in AHE stands at 4.4%.
- Wage indicators have peaked, but the moderation in wages will probably not follow a smooth path and may have temporarily slowed.

1) Monthly Wage Surveys through April 2023. GS Wage Tracker through Q2 2023.

2) Job Openings Data through May 2023.

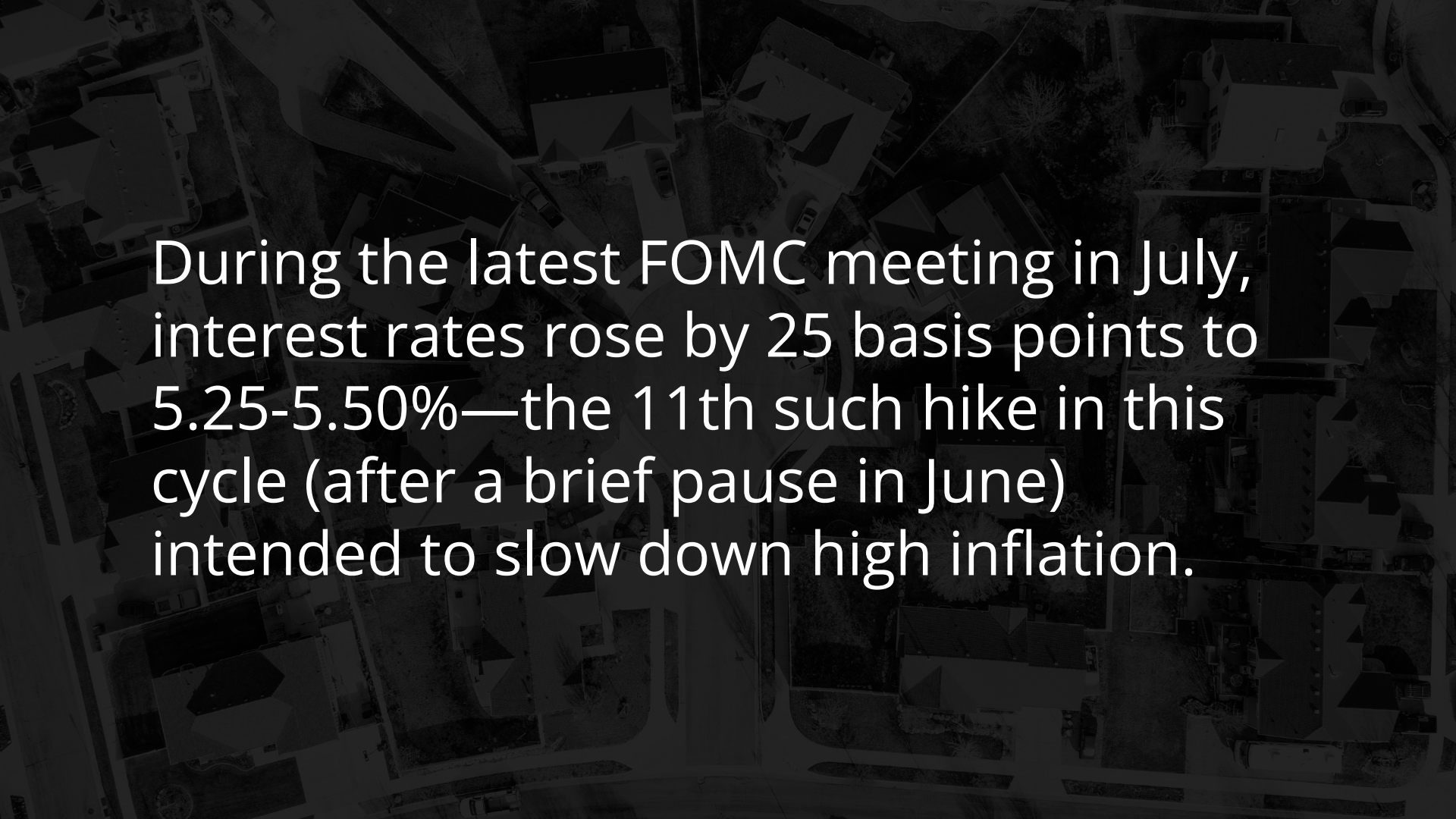
\*Average of NFIB, Dallas Fed manufacturing, Dallas Fed services, Richmond Fed Manufacturing, Richmond Fed services, NY Fed services, and Kansas City Fed services, scaled to 6-month annualized average hourly earnings.

\*\* Adjusted for changes in the composition of the labor force between 2020Q1 and 2021Q4.

Source: Investment Strategy Group, Goldman Sachs Global Investment Research Group, Department of Labor, Indeed.



# Interest Rates



During the latest FOMC meeting in July, interest rates rose by 25 basis points to 5.25-5.50%—the 11th such hike in this cycle (after a brief pause in June) intended to slow down high inflation.



We expect last weeks rate hike to 5.25-5.5% to be the last of the cycle. We expect cuts to start in 2024 Q2, to proceed at 25bps per quarter, and to end with the funds rate at 3-3.25%, above the FOMC's 2.5% longer run



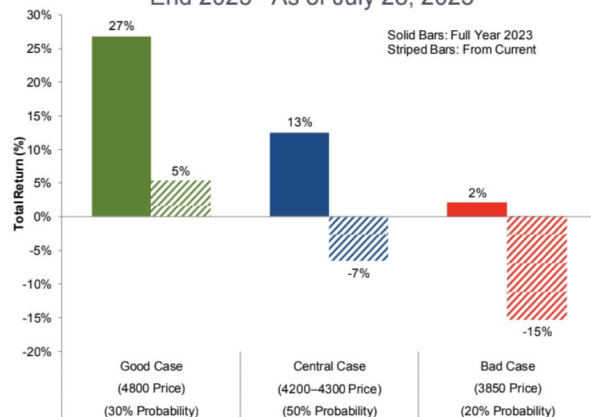


# Stock Market



# We Have Raised the Probability Allocated to Our Good Case

ISG S&P 500 Total Return Forecast Scenarios Through Year-End 2023 - As of July 28, 2023



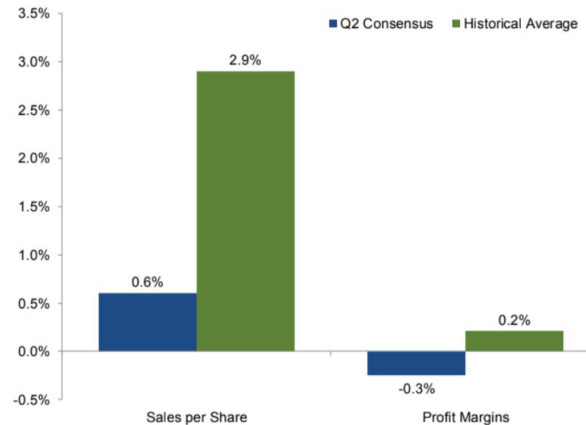
- More resilient US growth this year and our recently lowered recession probability have two implications for our US equity forecast:
  - A greater likelihood the S&P 500 can achieve our good case scenario of 4,800 (probability shift from 25% to 30%)
  - A lower likelihood of—and higher level for—our bad case scenario (probability from 25% to 20% and target up to 3,850 from 3,600)
- The revised price level of our bad case scenario assumes that if recession concerns came back into focus, the market would retrace to levels seen at the end of last year (around 3,850), when imminent recession fears were acute.
- While the S&P 500 has exceeded our base case range—which has been above consensus this year—that difference is well within normal equity volatility and does not undermine our recommendation that clients stay invested.

# The Resilience of US Economic Data Stands at Odds With the Muted Consensus for S&P 500 Earnings Growth

1. S&P 500 Consensus Earnings Per Share 2023

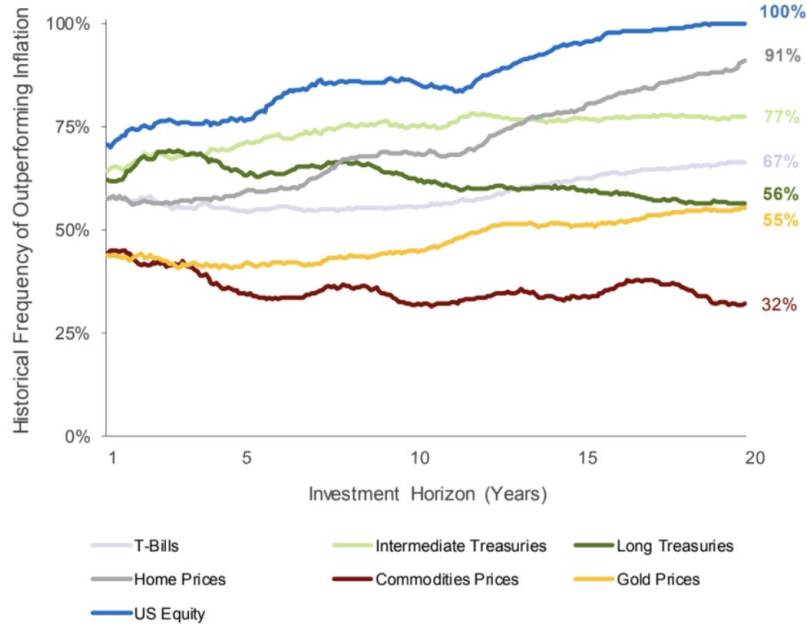


2. Consensus Expectations for Change in Q2 Sales and Margins From Q1



- Consensus EPS for 2023 fell 12 percentage points from its mid-2022 peak before rising \$2, which has been forfeited.
- As a result, consensus EPS 2023 implies 0.2% growth vs. last year. We expect mid-single digit growth (\$228-233 range).
- Note results are still being negatively impacted by a non-operating charge at Merck (worth \$1.20 in index EPS).
- The expected sequential increase in both sales and profit margins in Q2 also seems conservative.
- This lowers the hurdle for continued positive surprises in Q2 after better-than-expected Q1 results.
- If the remaining quarters of this year experience a typical upside surprise (4-5%) from current levels, consensus numbers would converge with our forecast.

## Frequency of Outperforming Inflation Over a Given Horizon



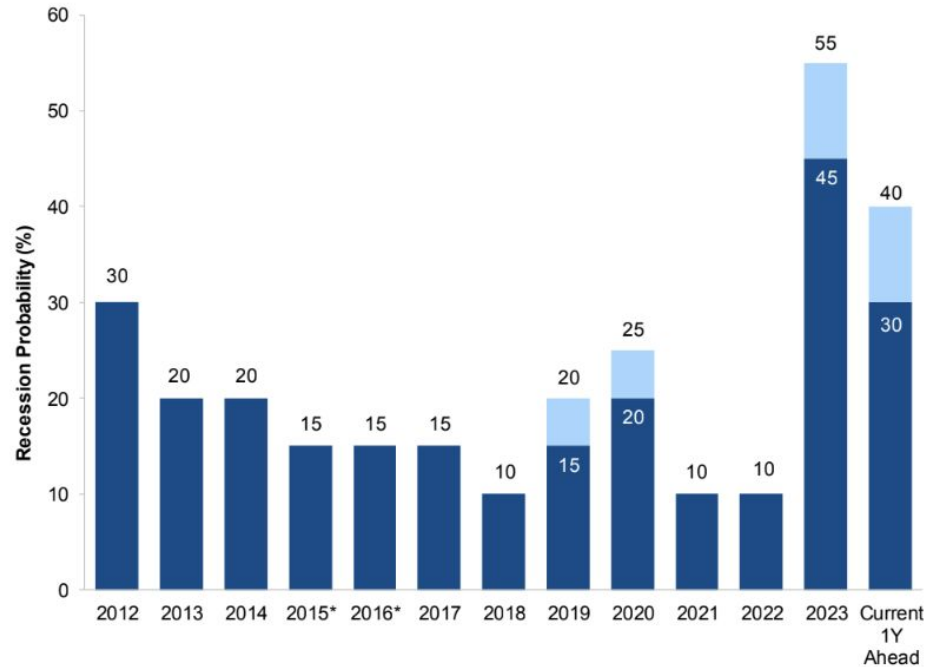
- Equities are the most consistent asset class in outperforming inflation. The asset class has delivered positive real returns over 100% of the rolling 20-year windows since 1926.

An aerial, top-down view of a residential neighborhood. The houses are arranged in a somewhat circular pattern around a central road. The image is in grayscale and has a dark, semi-transparent overlay. The word "Recession?" is written in a large, white, sans-serif font across the center of the image.

**Recession?**

# ISG Recession Probabilities

## ISG US Recession Probabilities Since 2012



These forecasts are estimated, based on assumptions, and are subject to significant revision and may change materially as economic and market conditions change. Source: Investment Strategy Group. \*The ISG Outlook reports in 2015 and 2016 included descriptive assessments of recession probabilities (“few signs of recession:” (2015) and “low probability” (2016)).



# US Recession Risks

“One of the greatest pieces of economic wisdom is to know what you do not know.”

Forecast	Probability of recession within:	
	1 year	2 years
William C. Dudley	60%	70%
Mark Zandi	33%	50%
Jason Furman	20%	50%
Investment Strategy Group	30-40%	45-55%
GS Investment Research Jan Hatzius & David Mericle	20%	n.a.

These forecasts are estimated, based on assumptions, and are subject to significant revision and may change materially as economic and market conditions change. Source: Investment Strategy Group, GS Global Investment Research, William C. Dudley, Mark Zandi, Jason Furman



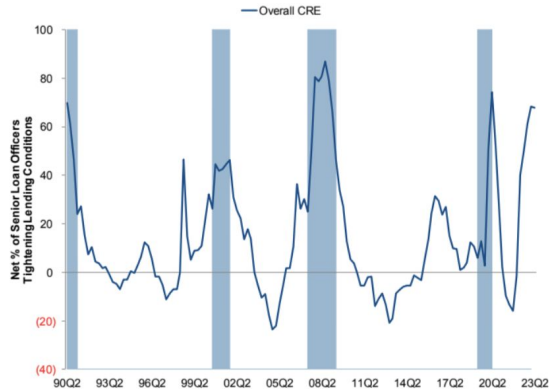


# Commercial Real Estate

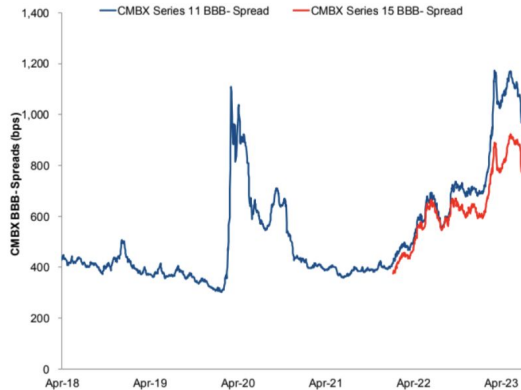
# Stress in the Commercial Real Estate Market is Reflected in the Performance of Real Estate Assets



1. Net Share of Senior Loan Officers Tightening Lending Conditions for CRE Loans (%)



2. Spreads of the CMBX BBB- Index (Series 11 and Series 15 Indexes)



- There is a sizable maturity wall in the Commercial Real Estate (CRE) debt market, with \$ 1.1 trillion (25% of the market) coming due in 2023 and 2024 even as lending standards have tightened substantially.
- Office and Retail CRE, which are typically considered the troubled segments of the CRE market, account for about 4% of total private nonfinancial debt<sup>1</sup>.
- The BBB- tranche of the Series 11 and 15 CMBX indices trades at spreads that are wider than what was seen during the peak of the COVID-19 pandemic and close to YTD wides, with a year-to-date price decline of 14.9% at the lows in March, and 6.2% currently<sup>2</sup>.

Source: Investment Strategy Group, Goldman Sachs Global Investment Research, Federal Reserve, Goldman Sachs Plot Tool, Markit, Bloomberg.

1. Office and Retail CRE account for 26% of \$ 5.5 tn in CRE, relative to \$ 37.955 tn in total private nonfinancial debt.

2. Price lows on the CMBX 11 and 15 series were seen on March 24, 2023. We are using the average price return of these two BBB- tranches.

Data as of Jul 31, 2023

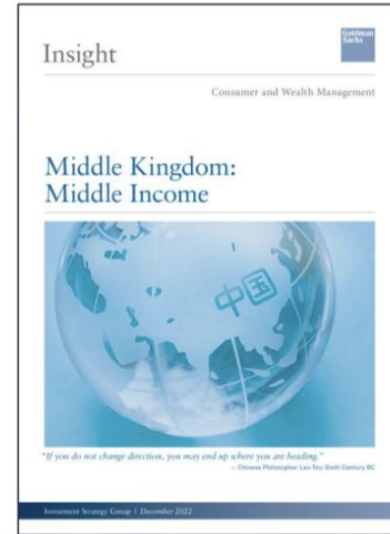


# Geopolitical and Risks



# Geopolitical and Other Risks

- Ukraine-Russia War Escalation
  - More aggressive attacks on infrastructure outside Ukraine
  - Use of nuclear capabilities
  - Shortages of ammunition; no financial constraints
- US-China Tensions
  - Change in national security strategies: US and its allies
  - Export and import controls in the US
  - Increased Chinese military activities in Indo-Pacific region
- North Korea: Increased ballistic missile testing and a nuclear test
- Iran: Further enrichment to 90% level and further Russia-Iran defense partnership
- Cybersecurity
- Terrorism



An aerial, top-down view of a residential neighborhood. The houses are arranged in a somewhat circular or semi-circular pattern around a central area. The roofs are dark, and the surrounding areas are filled with trees and greenery. The overall tone is dark and muted, with a semi-transparent white text overlay in the center.

**United States**

GDP, Nobel Laureates and Universities in Top 50 – As of 2021

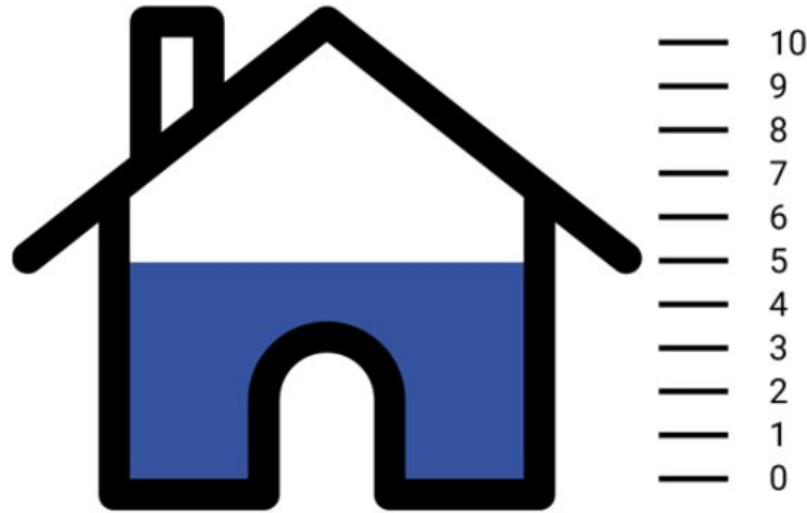
	<b>GDP (US\$ Billions)</b>	<b>GDP per Capita (US\$)</b>	<b>Nobel Laureates</b>	<b>Universities in Top 50</b>
United States	22,996	69,227	403	23
Europe	22,044	37,060	579	15
France	2,957	45,188	72	1
Germany	4,263	51,238	113	3
Italy	2,101	35,473	21	0
Spain	1,426	30,090	8	0
United Kingdom	3,188	47,329	137	7
Japan	4,933	39,301	29	1
Australia	1,635	63,464	12	2
New Zealand	247	48,317	3	0
Canada	1,988	52,015	28	3
Korea	1,811	35,004	1	0
<b>West &amp; Allies</b>	<b>55,654</b>	<b>47,432</b>	<b>1,055</b>	<b>44</b>
China	17,745	12,562	10	4
Russia	1,779	12,219	32	0
<b>East</b>	<b>19,523</b>	<b>12,530</b>	<b>42</b>	<b>4</b>
<b>West &amp; Allies vs. East Ratio</b>	<b>2.9x</b>	<b>3.8x</b>	<b>25.1x</b>	<b>11.0x</b>

An aerial, grayscale photograph of a residential neighborhood. The houses are arranged in a somewhat irregular pattern, with some larger homes and some smaller ones. There are many trees and green spaces interspersed among the buildings. The overall scene is a typical suburban or rural residential area.

# Housing Market Activity Scale

# GS Housing Activity Weekly Scale Holds at 5

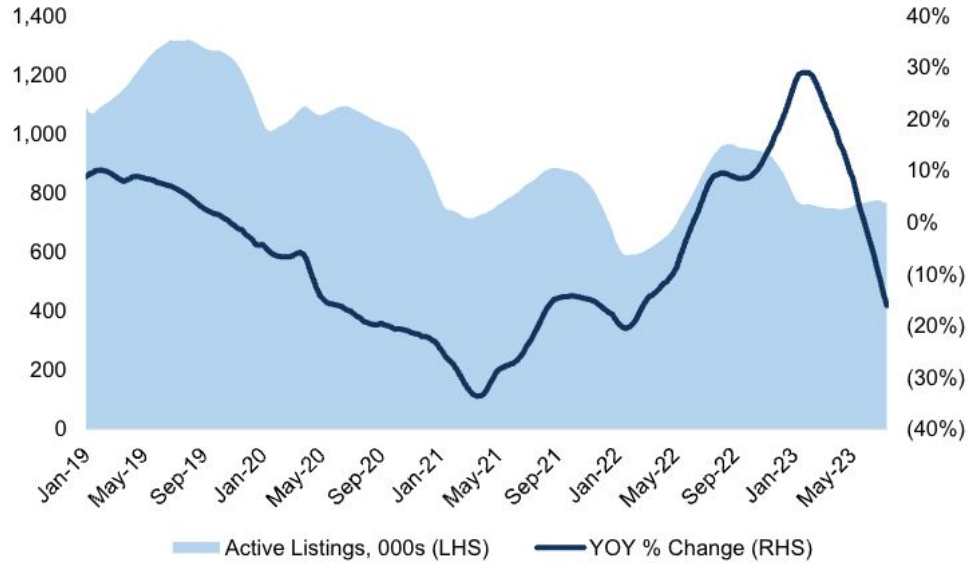
Prices back on the rise



Source: Goldman Sachs Global Investment Research

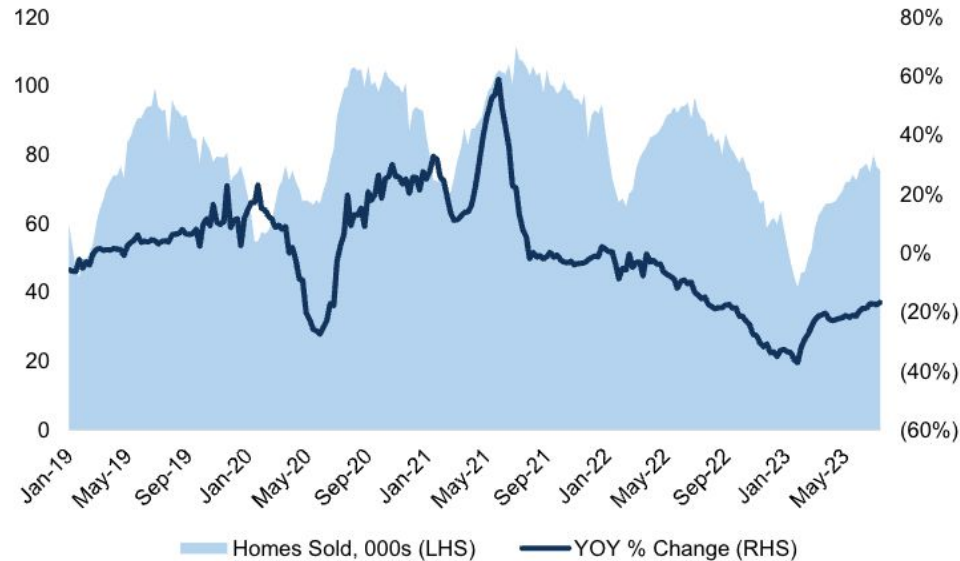


# Active Listings Down 16% YOY



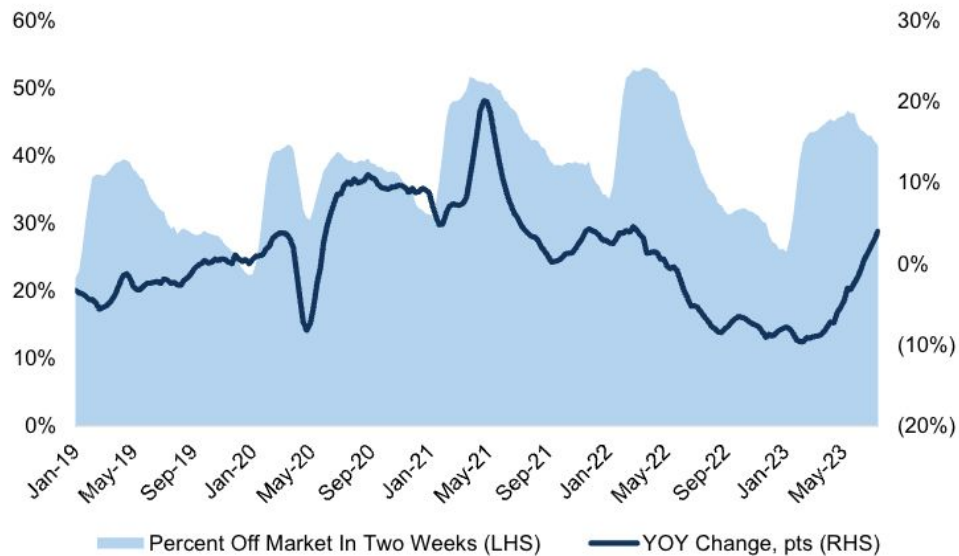
Source: Redfin, Goldman Sachs Global Investment Research

# Home Sales Down 17% YOY



Source: Redfin, Goldman Sachs Global Investment Research

# 42% of Homes Off Market in Two Weeks



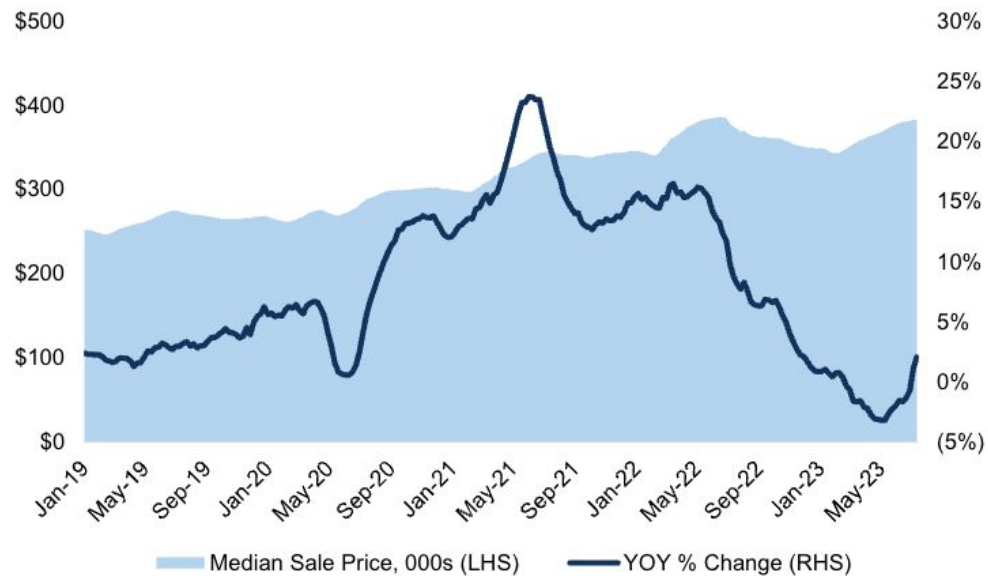
Source: Redfin, Goldman Sachs Global Investment Research

# Median New Listing Price Up 2% YOY



Source: Redfin, Goldman Sachs Global Investment Research

# Median Sale Price Up 2% YOY



Source: Redfin, Goldman Sachs Global Investment Research



# 6% of Active Listings With Price Drops



Source: Redfin, Goldman Sachs Global Investment Research

# Median Listing Price Down 1% YOY



Source: Realtor.com, Goldman Sachs Global Investment Research

# Median Time on Market Up 10 Days YOY

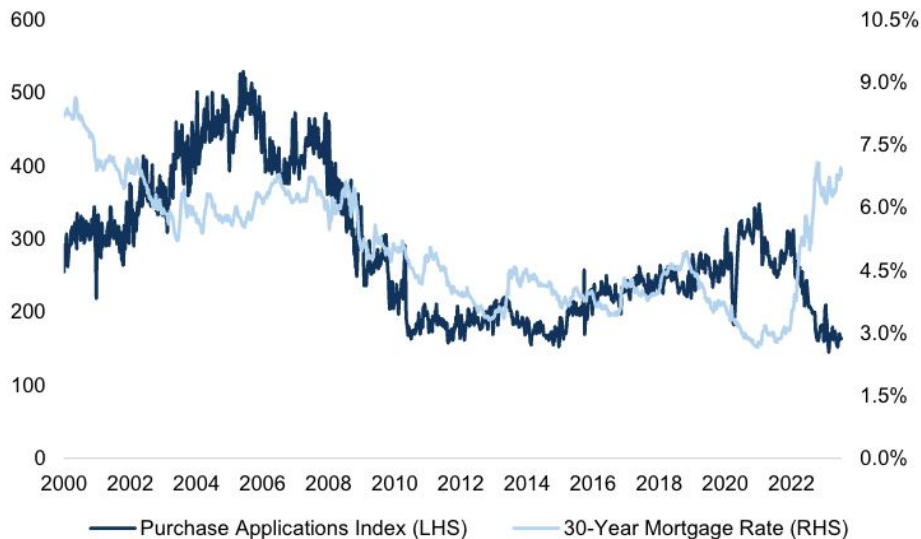


Source: Realtor.com, Goldman Sachs Global Investment Research



# Mortgage Overview

# Mortgage Purchase Applications Fell 22% YOY

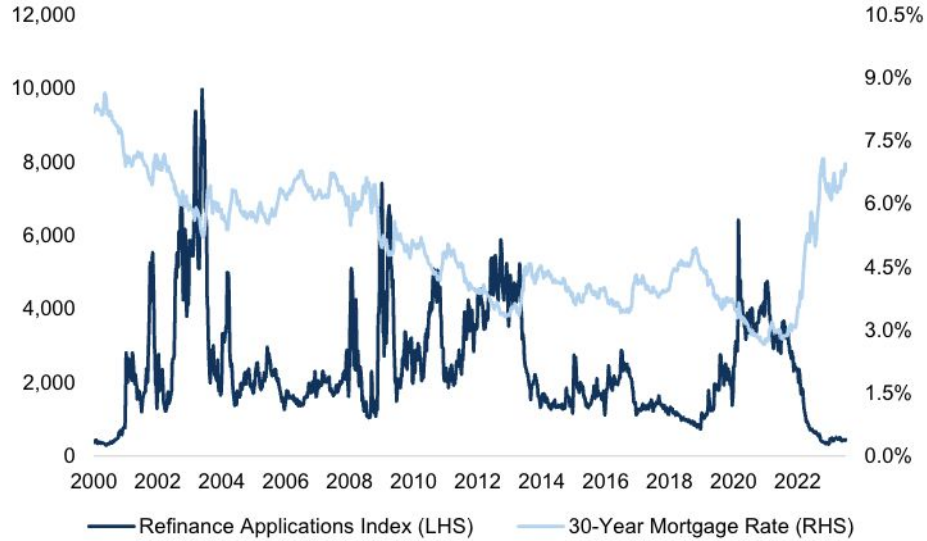


3/16/90 = 100

Source: Mortgage Bankers Association, Freddie Mac, Goldman Sachs Global Investment Research



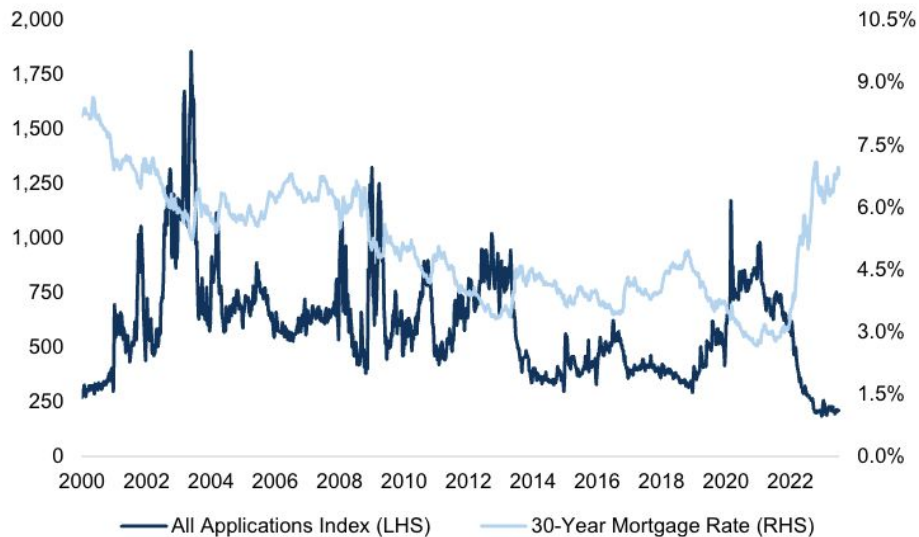
# Refinancing Applications Fell 32% YOY



3/16/90 = 100

Source: Mortgage Bankers Association, Freddie Mac, Goldman Sachs Global Investment Research

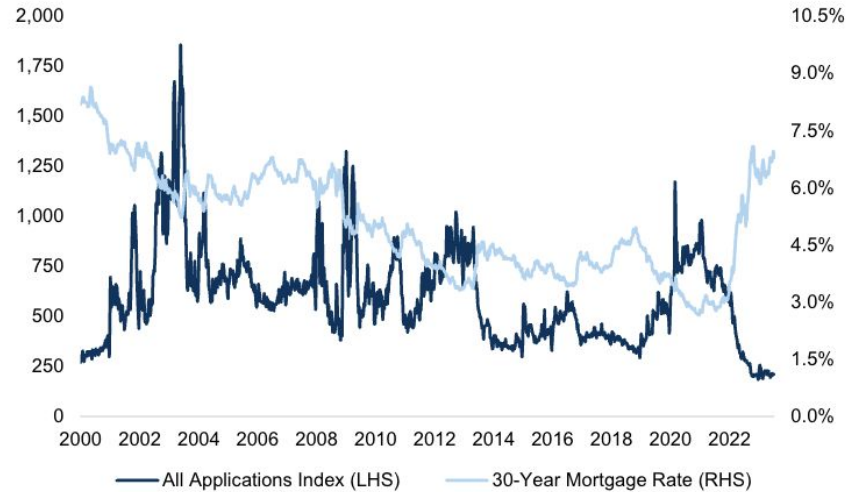
# Total Mortgage Applications Fell 25% YOY



3/16/90 = 100

Source: Mortgage Bankers Association, Freddie Mac, Goldman Sachs Global Investment Research

# ARMs Accounted for 6% of Volume and 14% of Value



3/16/90 = 100

Source: Mortgage Bankers Association, Freddie Mac, Goldman Sachs Global Investment Research

An aerial, top-down view of a residential neighborhood. The houses are arranged in a somewhat circular pattern around a central area. The roofs are dark, and the surrounding areas are filled with trees and greenery. The overall tone is dark and muted, with the text overlaid in white.

# How to Talk About the Economy