



THE TEXAS ECONOMY & HOUSING MARKET

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THE BROADER ECONOMY

**DECELERATING, ALBEIT
ELEVATED INFLATION**

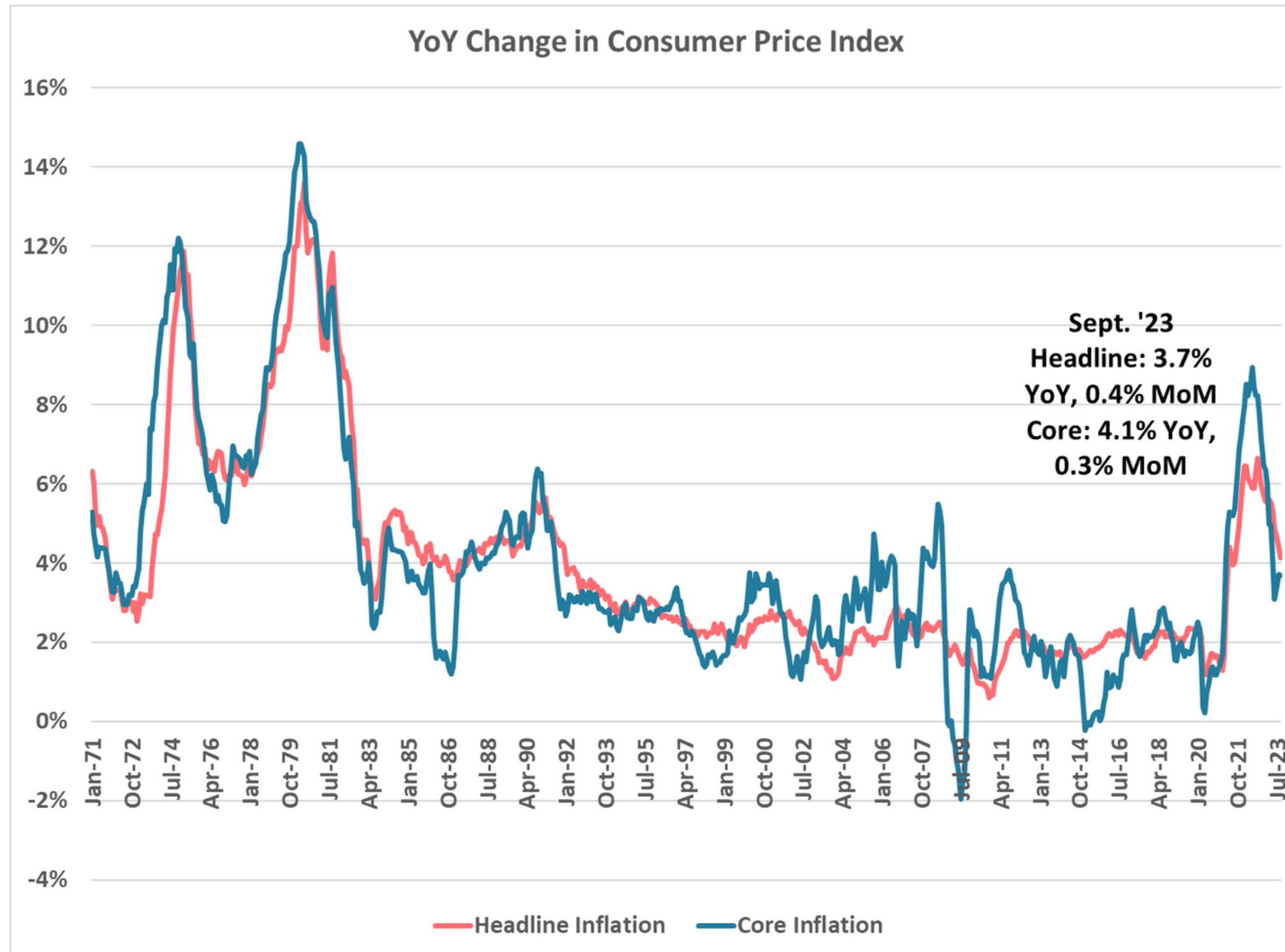
**STILL-STRONG LABOR
MARKET**

**UNCERTAINTY OVER
FUTURE RATE HIKES**

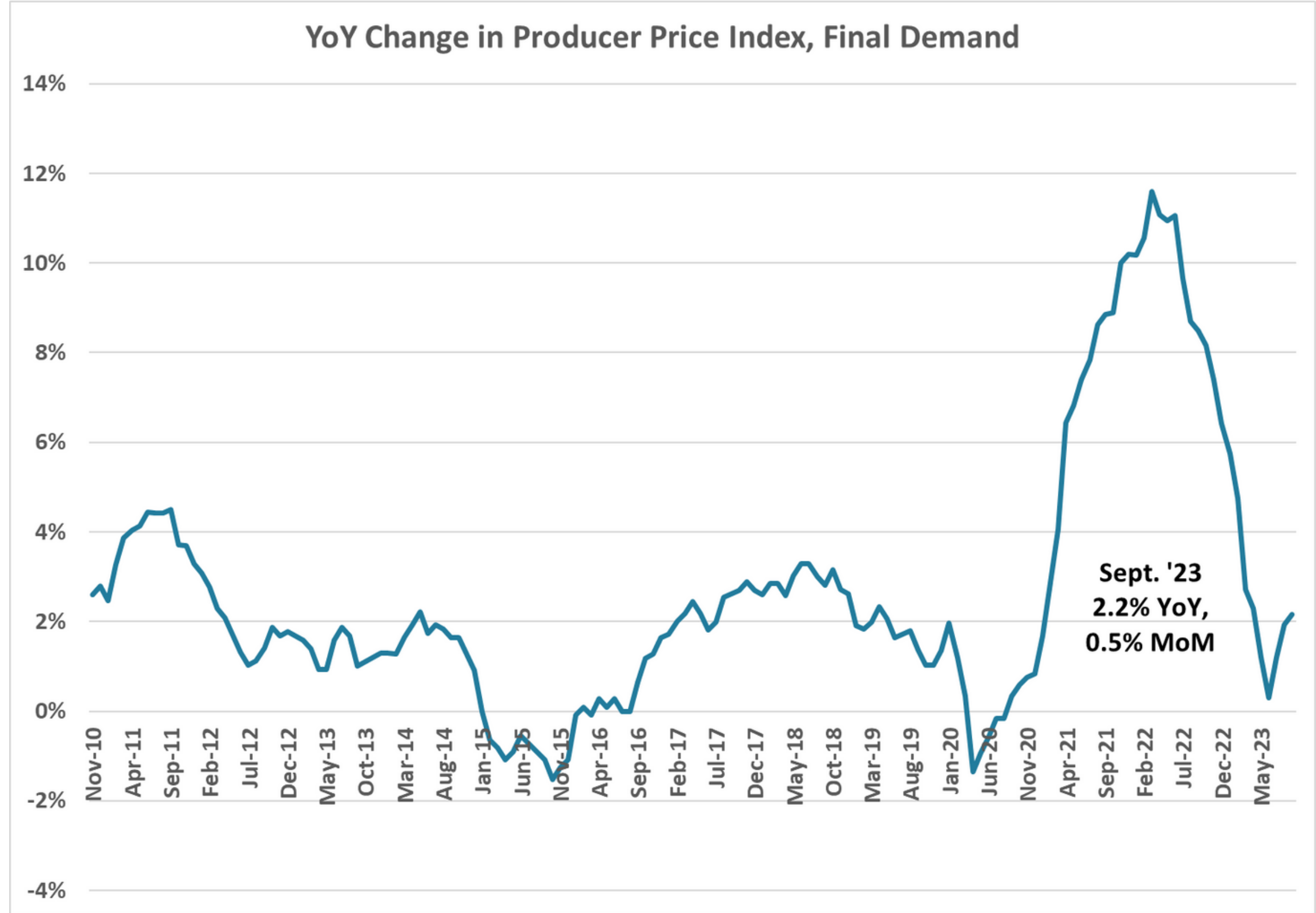
**ROBUST CONSUMER
BALANCE SHEETS**



CONSUMER INFLATION COOLING, BUT STILL ELEVATED

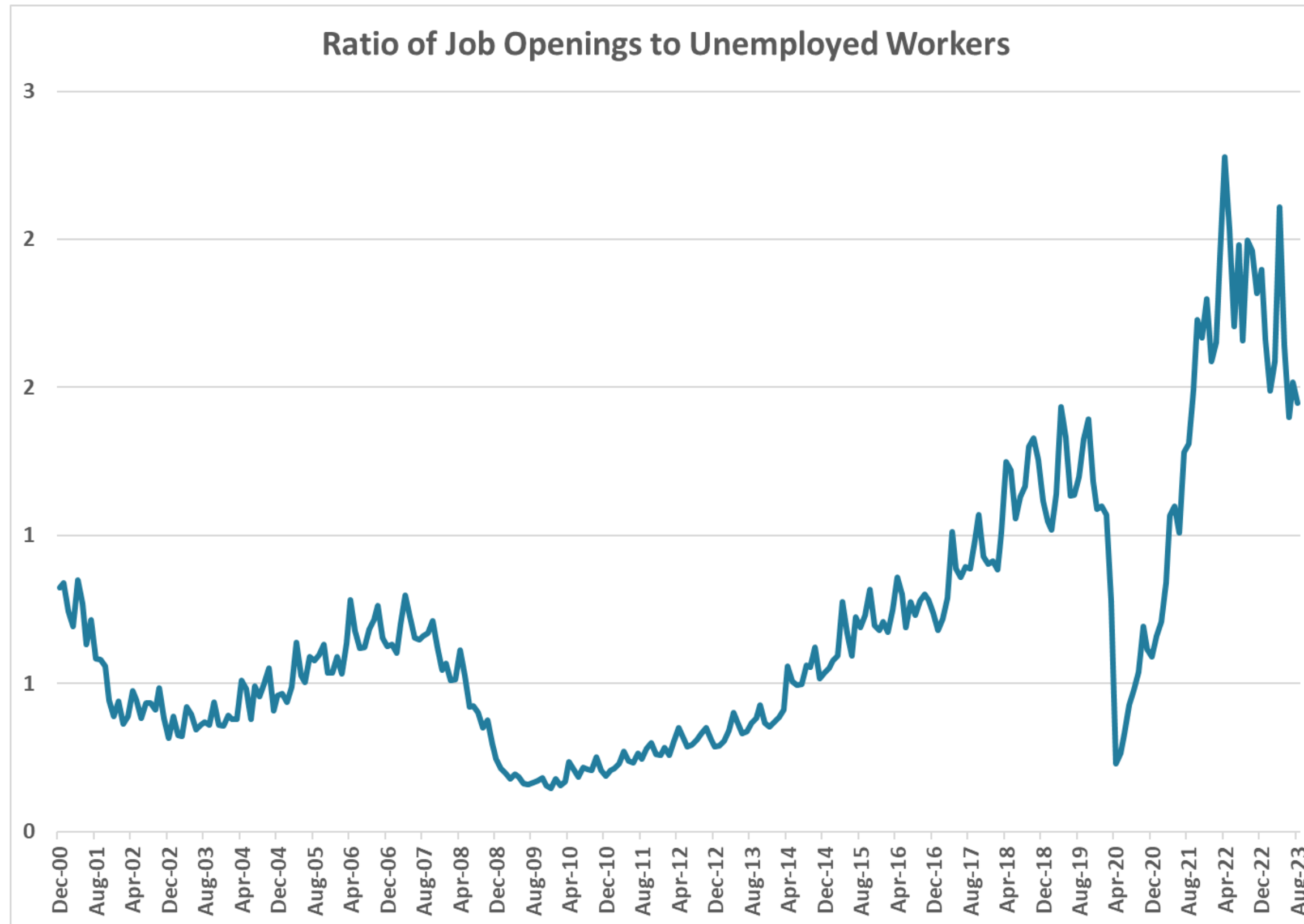


PRODUCER INFLATION DOWN OVERALL, BUT TICKED UP IN SEPT. '23



Source: Bureau of Labor Statistics

LABOR MARKET REMAINS STRONG



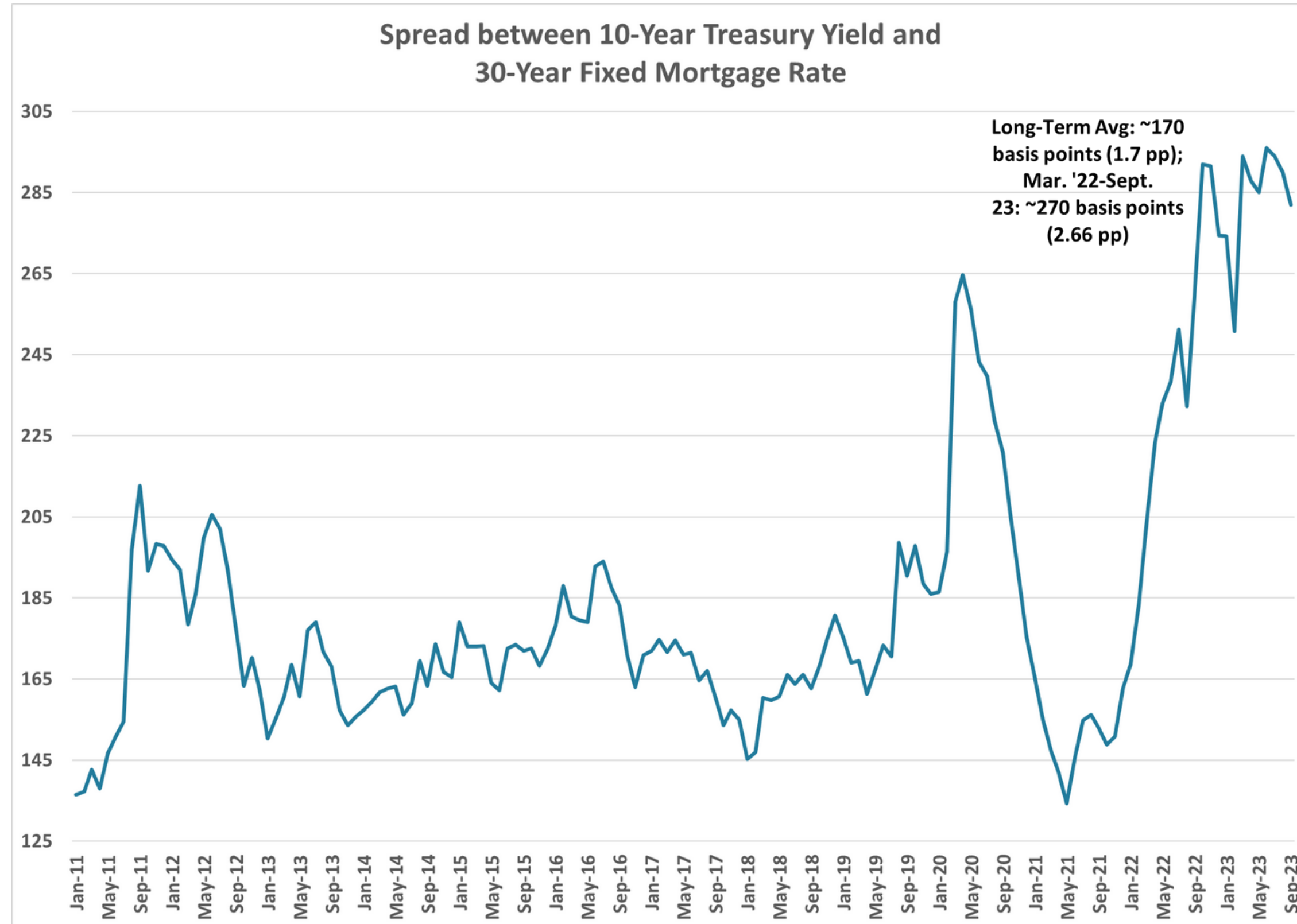
Source: Bureau of Labor Statistics

RATE HIKES BY FEDERAL RESERVE INCREASE BORROWING COSTS



Source: Board of Governors of the Federal Reserve System (US), Freddie Mac, FRED

UNCERTAINTY RE MONETARY POLICY INCREASING RISK



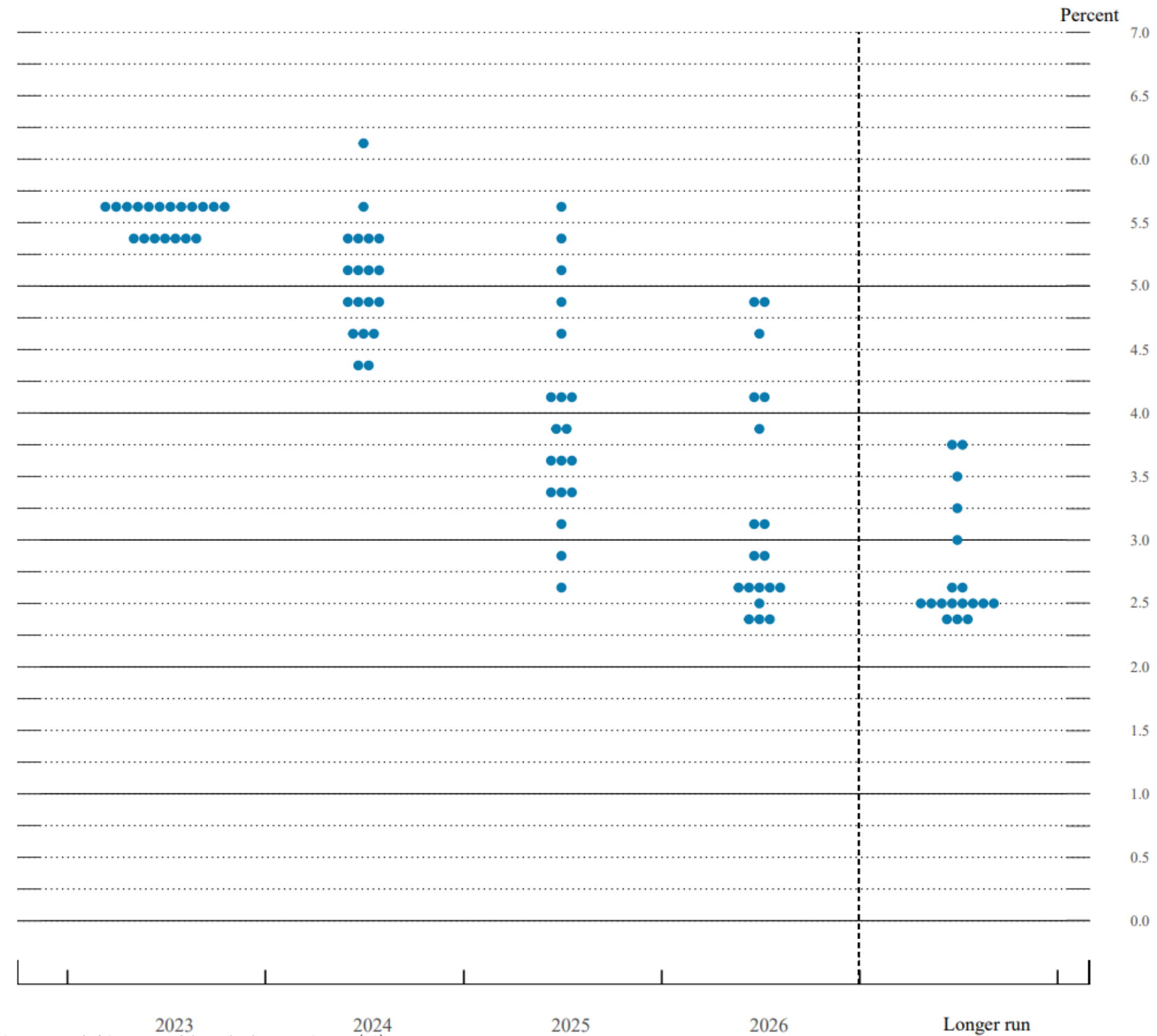
Source: Board of Governors of the Federal Reserve System (US), Freddie Mac, FRED

UNCERTAINTY RE DIRECTION & MAGNITUDE OF MACROECONOMIC POLICY AFFECTING POTENTIAL BUYERS

Mortgage Rate	% Change in Monthly Mortgage Payment	Change in Annual Mortgage Payment for \$200,000 Home	Change in Annual Mortgage Payment for \$300,000 Home	Change in Annual Mortgage Payment for \$400,000 Home
6.5%	-11.4%	-\$1,381	-\$2,072	-\$2,763
7%	-5.8%	-\$743	-\$1,115	-\$1,487
7.5%	-0.7%	-\$92	-\$138	-\$184
8%	4.1%	\$571	\$857	\$1,142
8.5%	8.4%	\$1,246	\$1,869	\$2,492

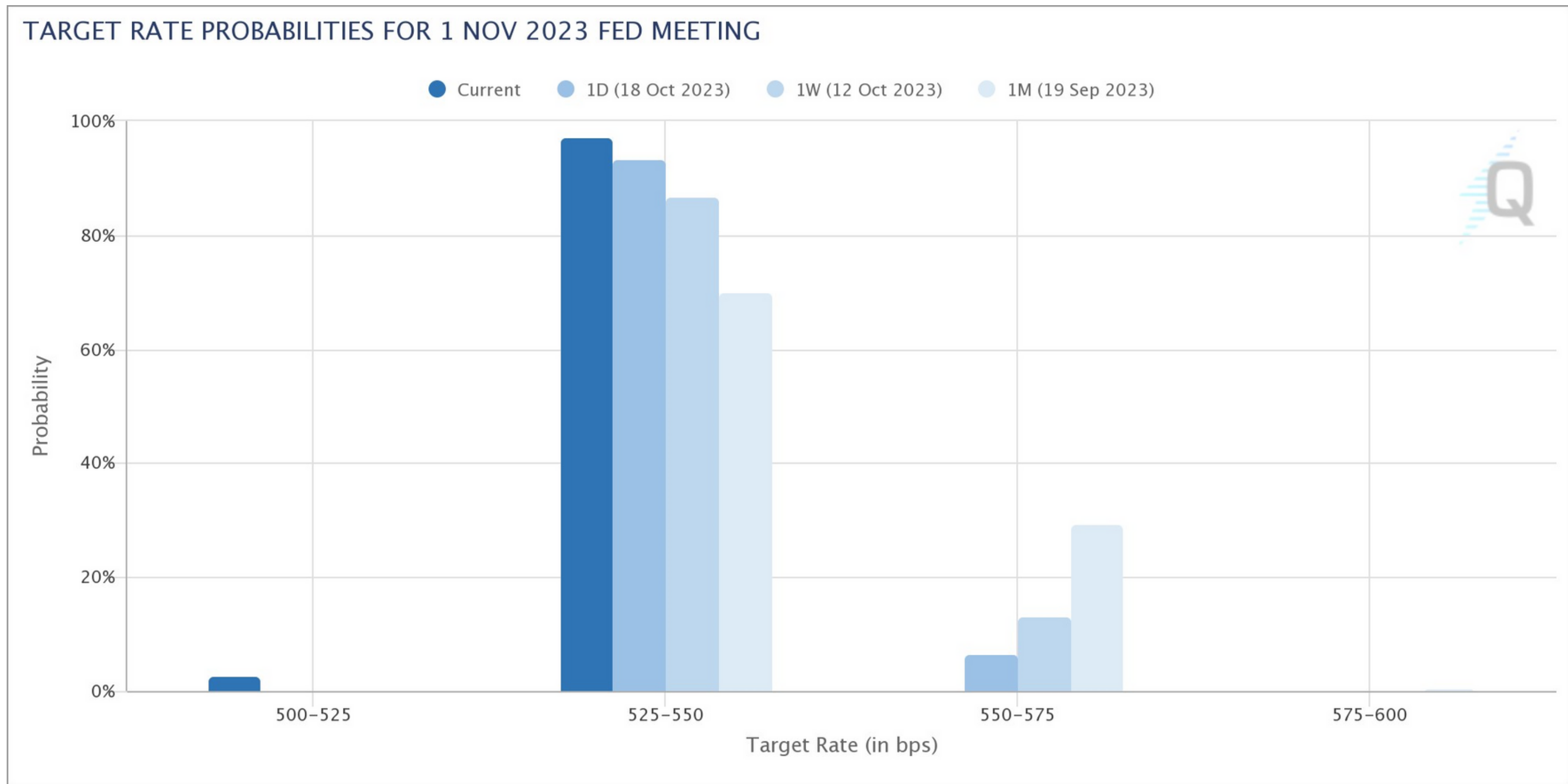
Source: Freddie Mac, FRED, author's calculations

FEDERAL RESERVE INDICATED A NOV. OR DEC. RATE HIKE IN ITS SEPT. MEETING

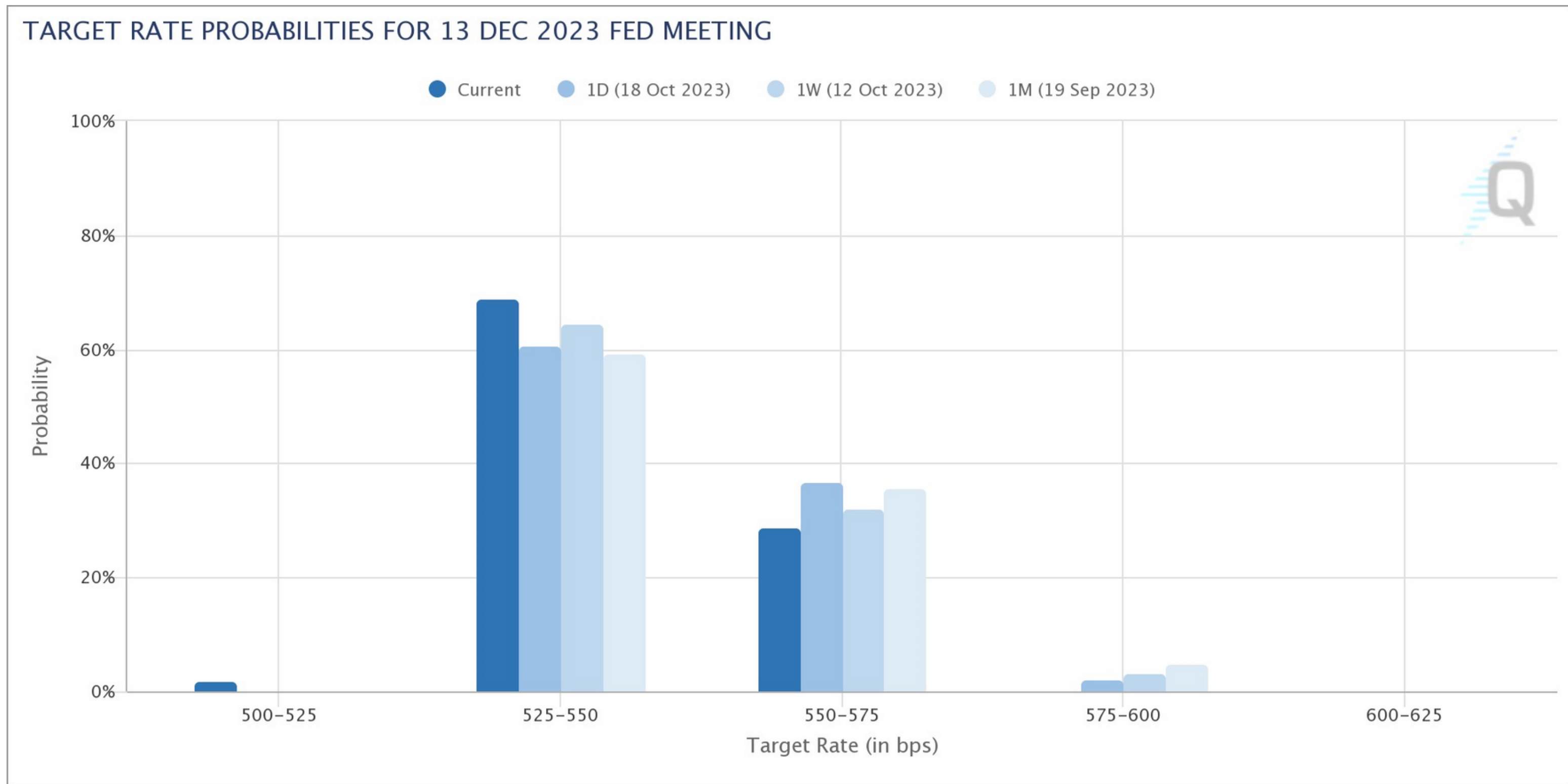


Source: Board of Governors of the Federal Reserve System (US)

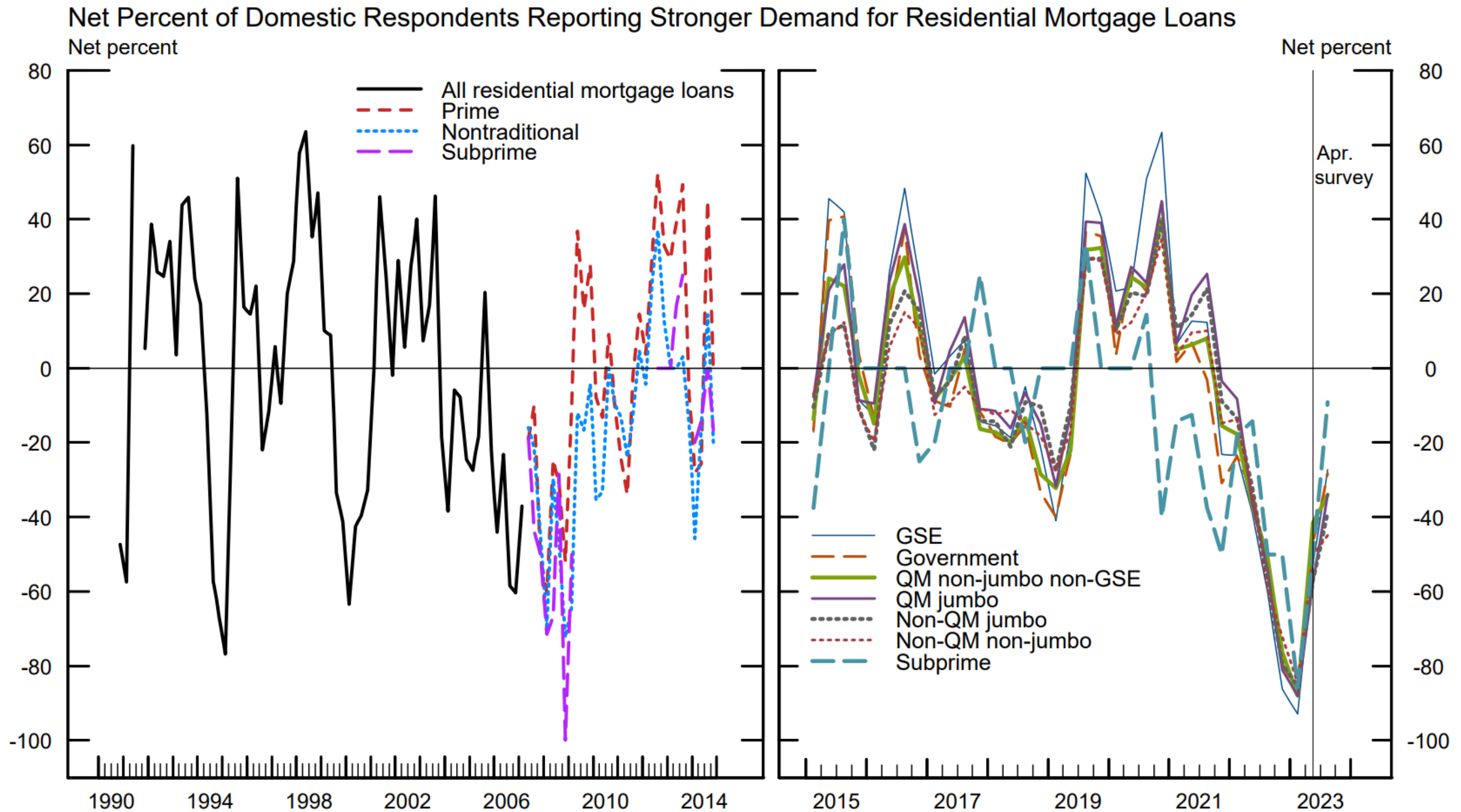
MARKET PRICING IN LOW PROBABILITY OF NOVEMBER RATE HIKE



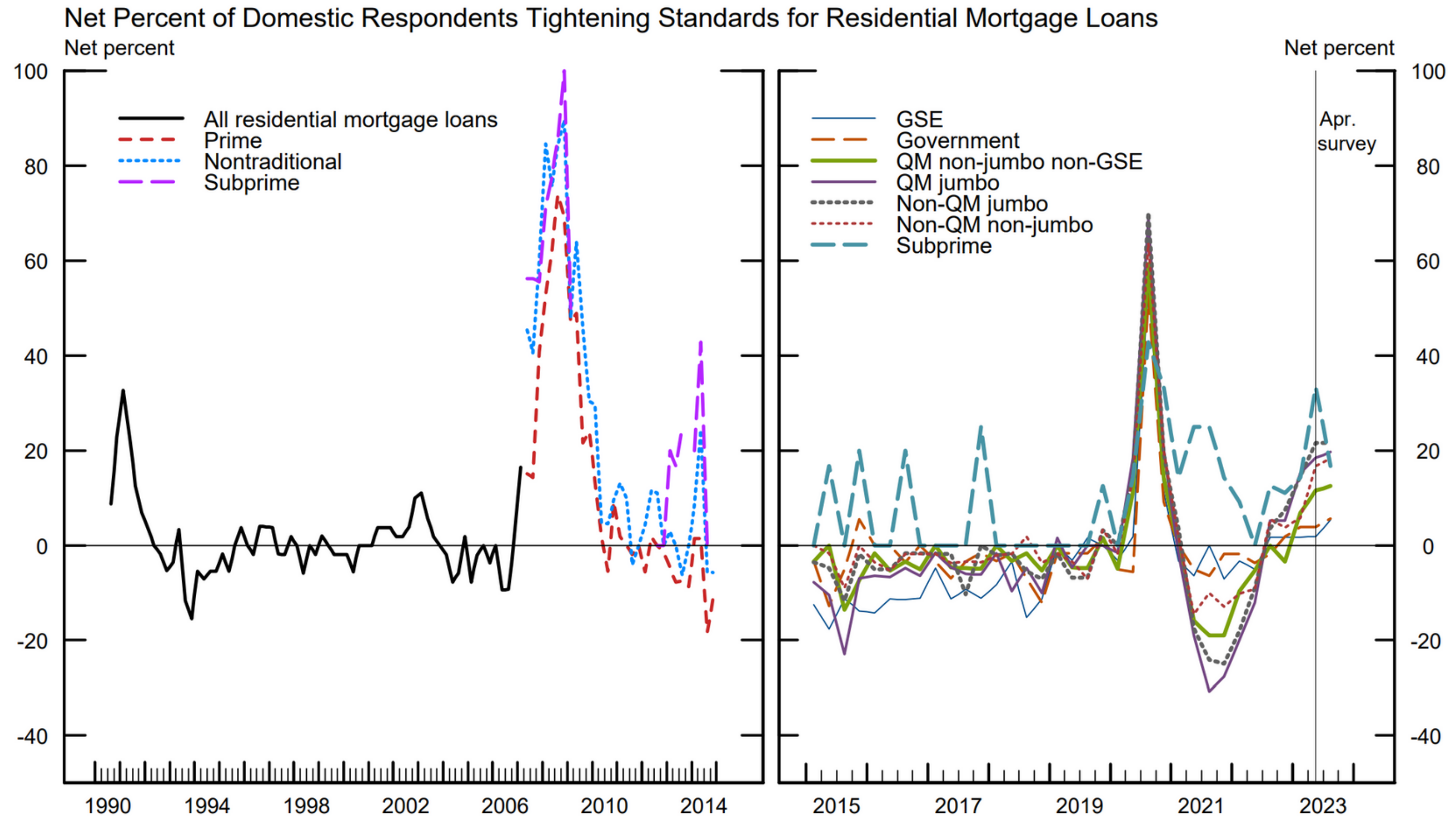
MARKET ALSO PRICING IN LOW PROBABILITY OF DECEMBER RATE HIKE



DEMAND FOR RESIDENTIAL MORTGAGE LOANS STILL NEGATIVE, BUT CLIMBING

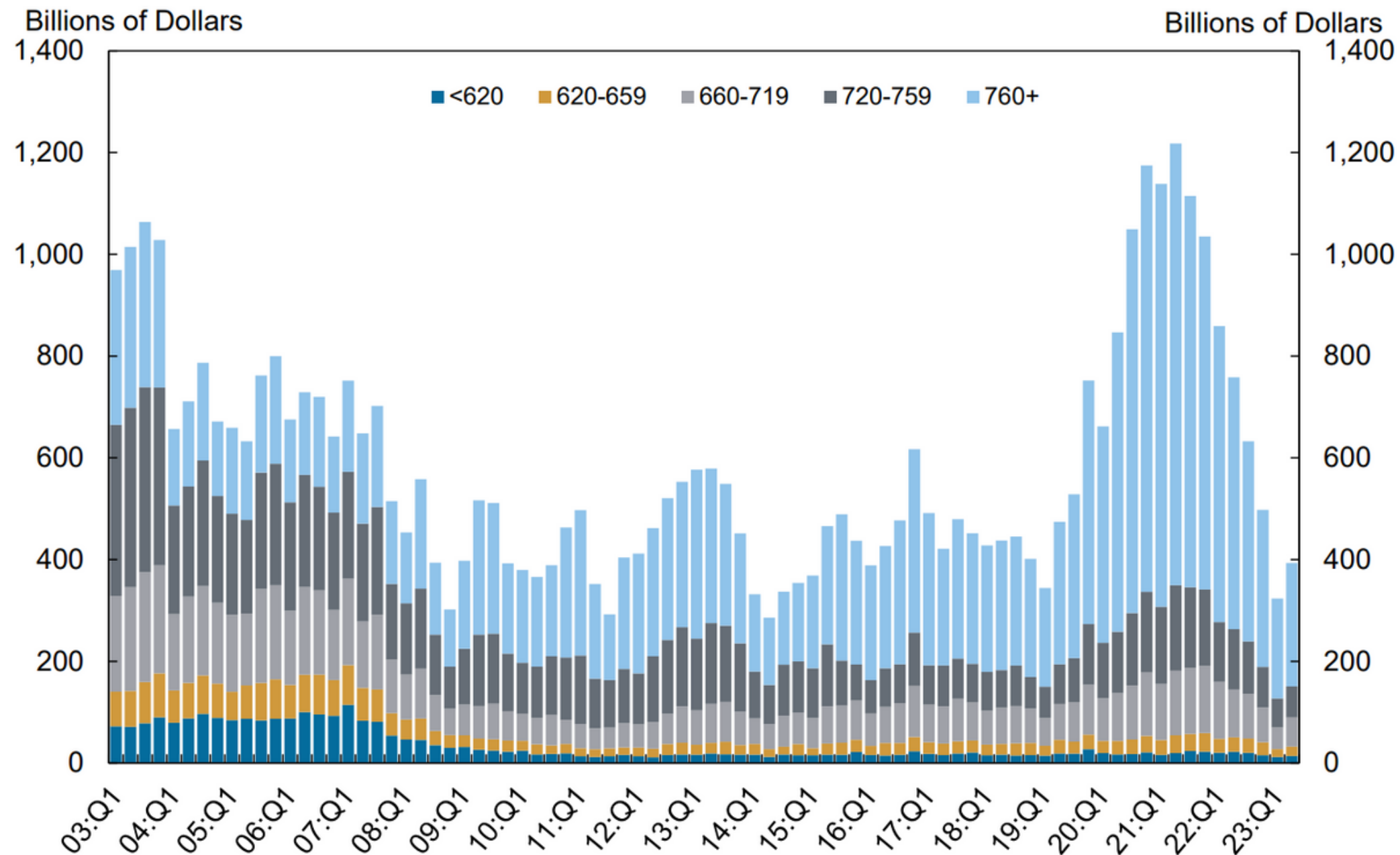


HIGHER QUALIFYING STANDARDS FOR RESIDENTIAL MORTGAGE LOANS



MORTGAGE ORIGINATIONS DOWN; TIGHTER CREDIT STANDARDS

Mortgage Originations by Credit Score*



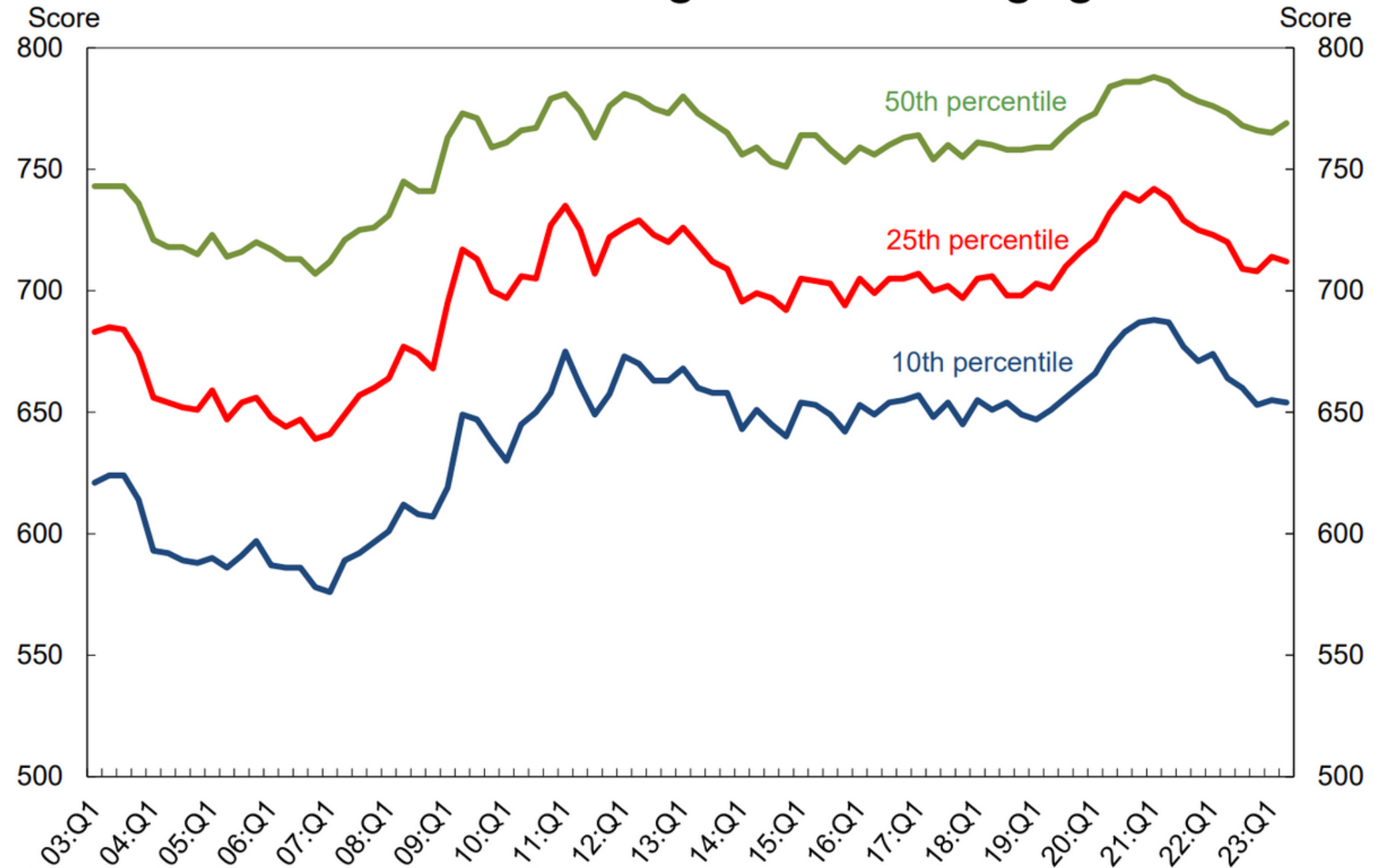
Source: New York Fed Consumer Credit Panel/Equifax

* Credit Score is Equifax RiskScore 3.0

Source: Federal Reserve Bank of New York

MORTGAGE ORIGINATIONS DOWN; TIGHTER CREDIT STANDARDS

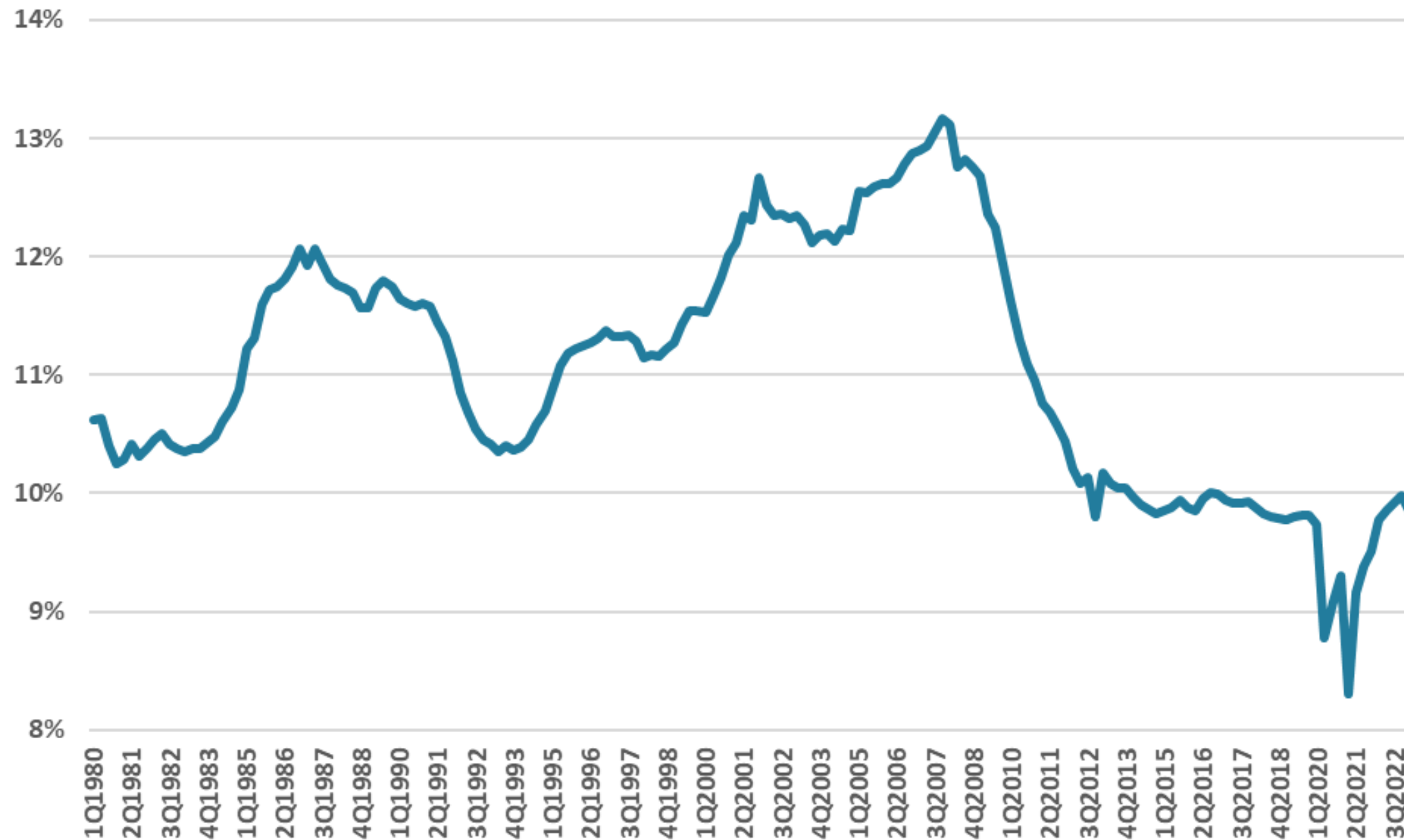
Credit Score at Origination: Mortgages*



Source: New York Fed Consumer Credit Panel/Equifax
* Credit Score is Equifax Riskscore 3.0; mortgages include first-liens only.
Source: Federal Reserve Bank of New York

HOUSEHOLD INDEBTNESS AS A % OF INCOME RELATIVELY LOW

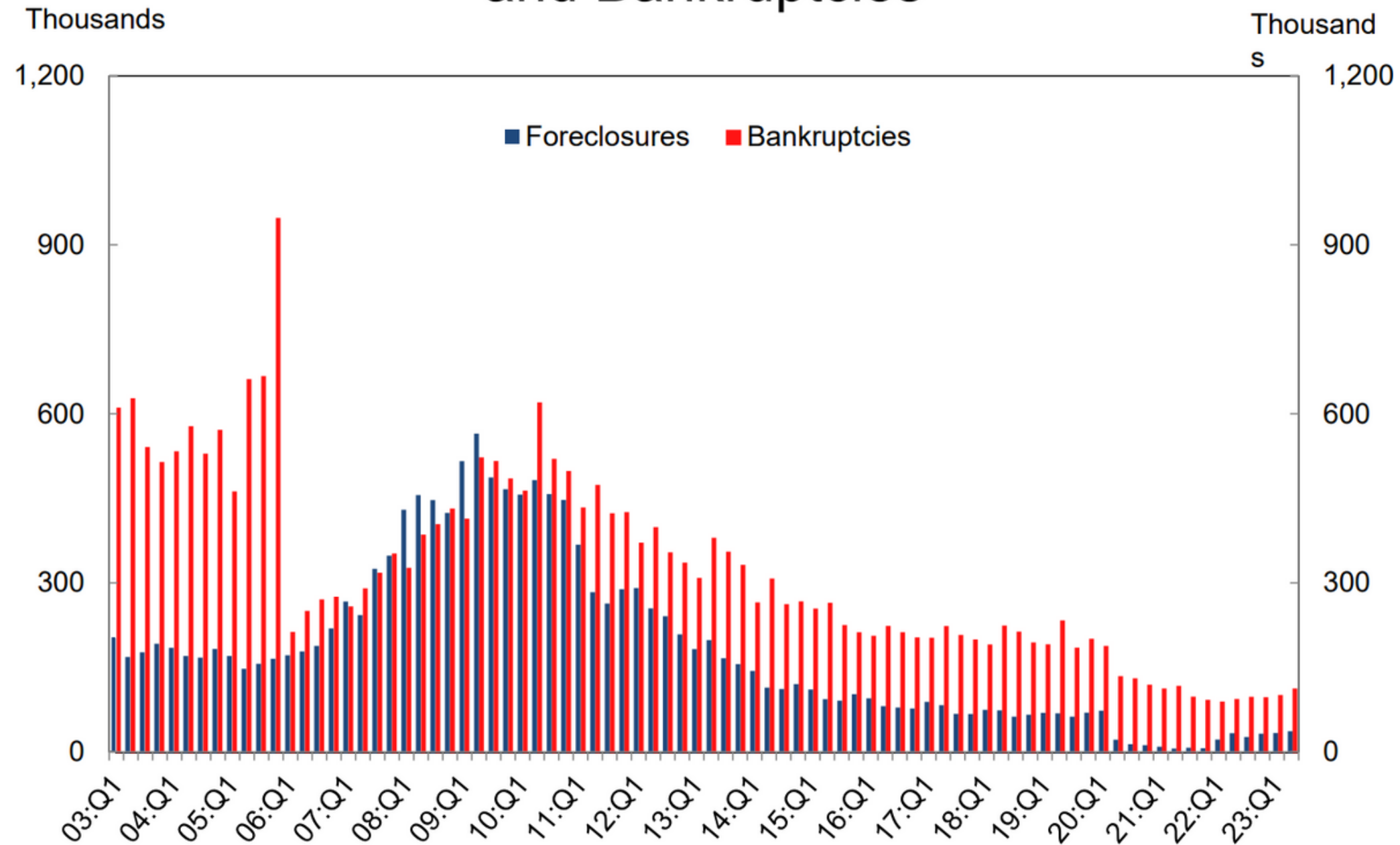
Household Debt Service Payments as a % of Disposable Income



Source: Board of Governors of the Federal Reserve System


RELATIVELY FEW NEW FORECLOSURES AND BANKRUPTCIES

Number of Consumers with New Foreclosures and Bankruptcies



Source: New York Fed Consumer Credit Panel/Equifax

Source: Federal Reserve Bank of New York



THE TEXAS ECONOMY

**UNEMPLOYMENT REMAINS
LOW**

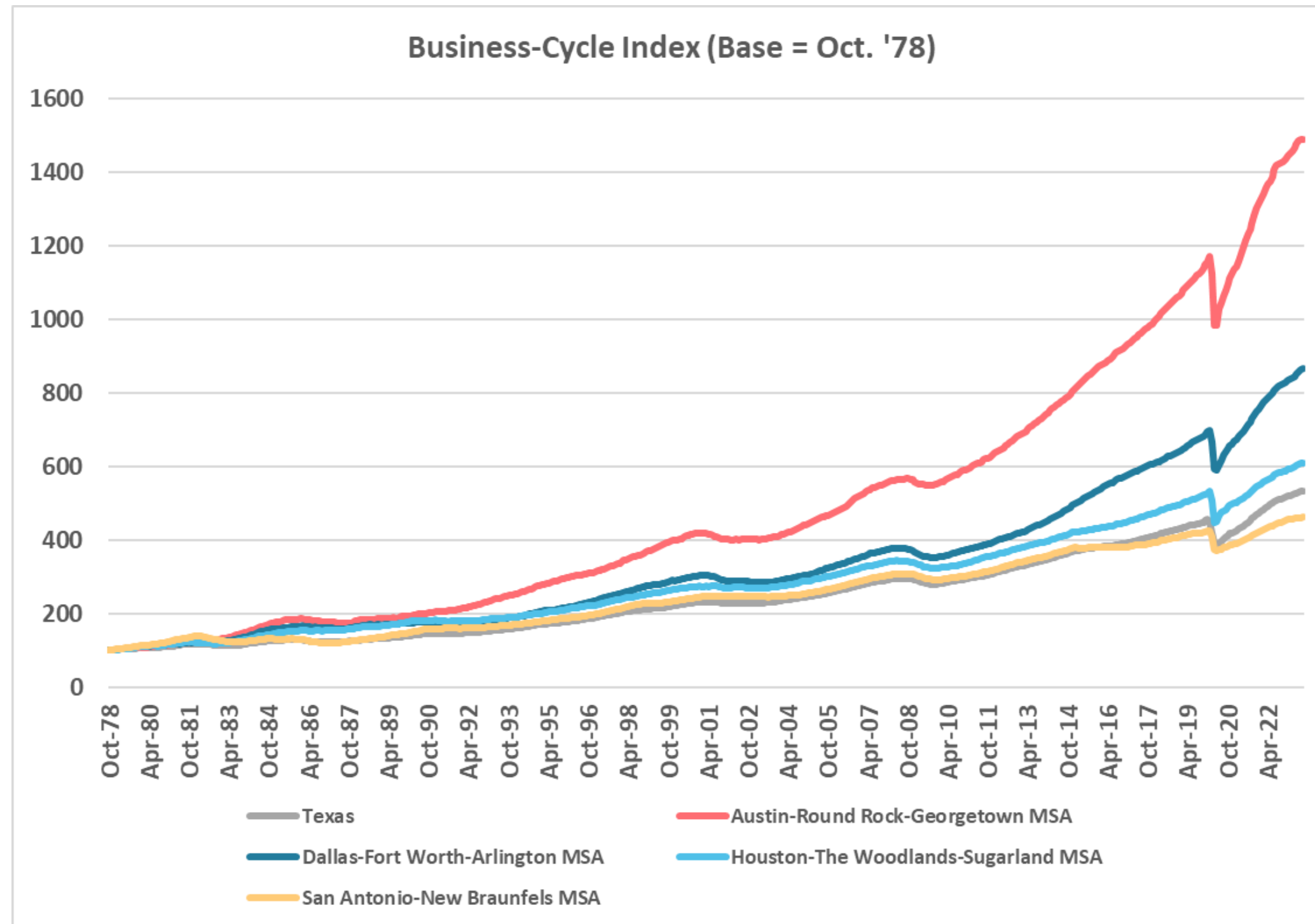
**JOB GROWTH
SLOWING**

**EARNINGS GROWTH
REMAINS STRONG**



TEXAS BUSINESS- CYCLE INDEX

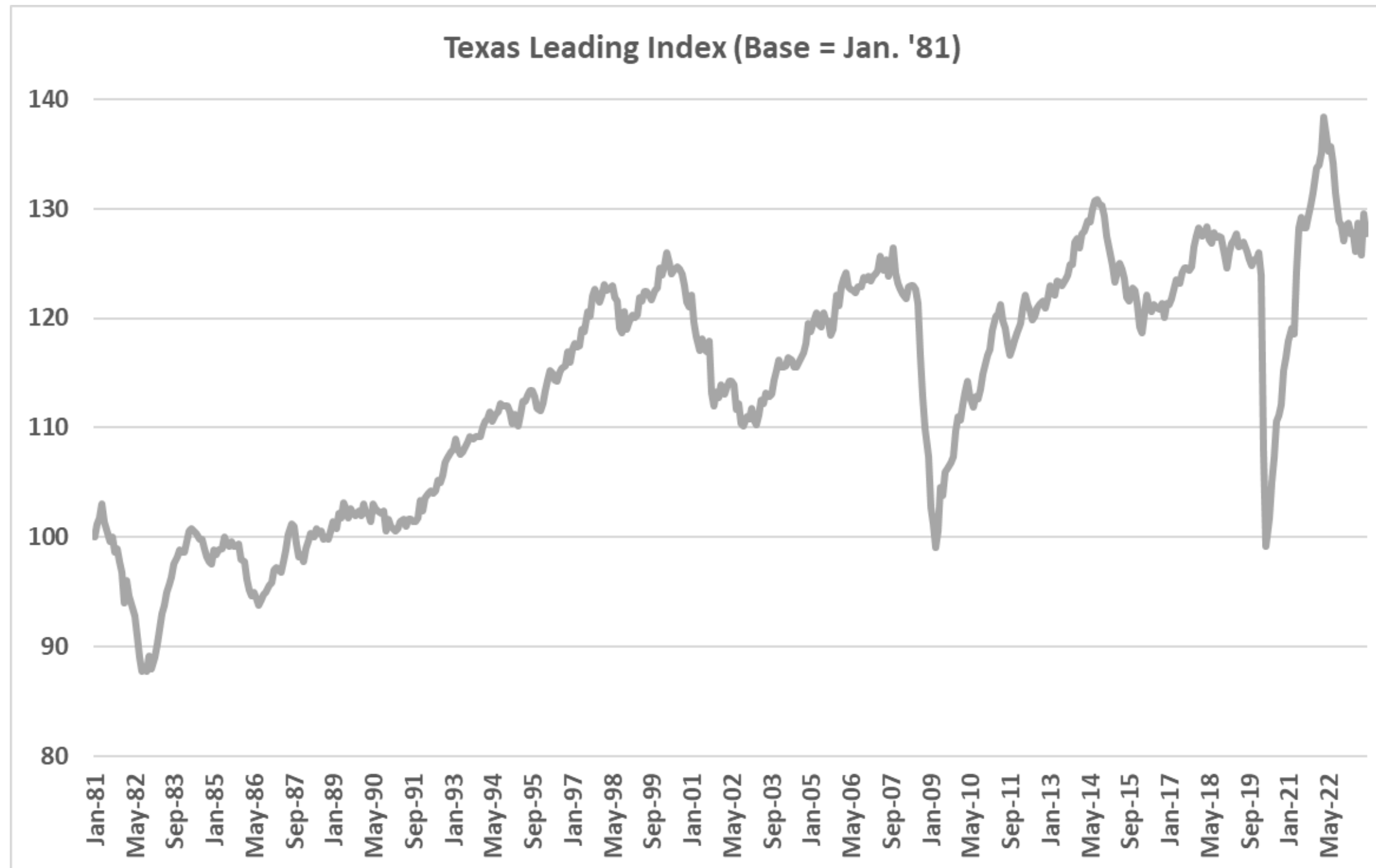
“helps gauge the current state of the Texas economy. The index is constructed using payroll employment, gross state product and the unemployment rate.”



Source: Federal Reserve Bank of Dallas

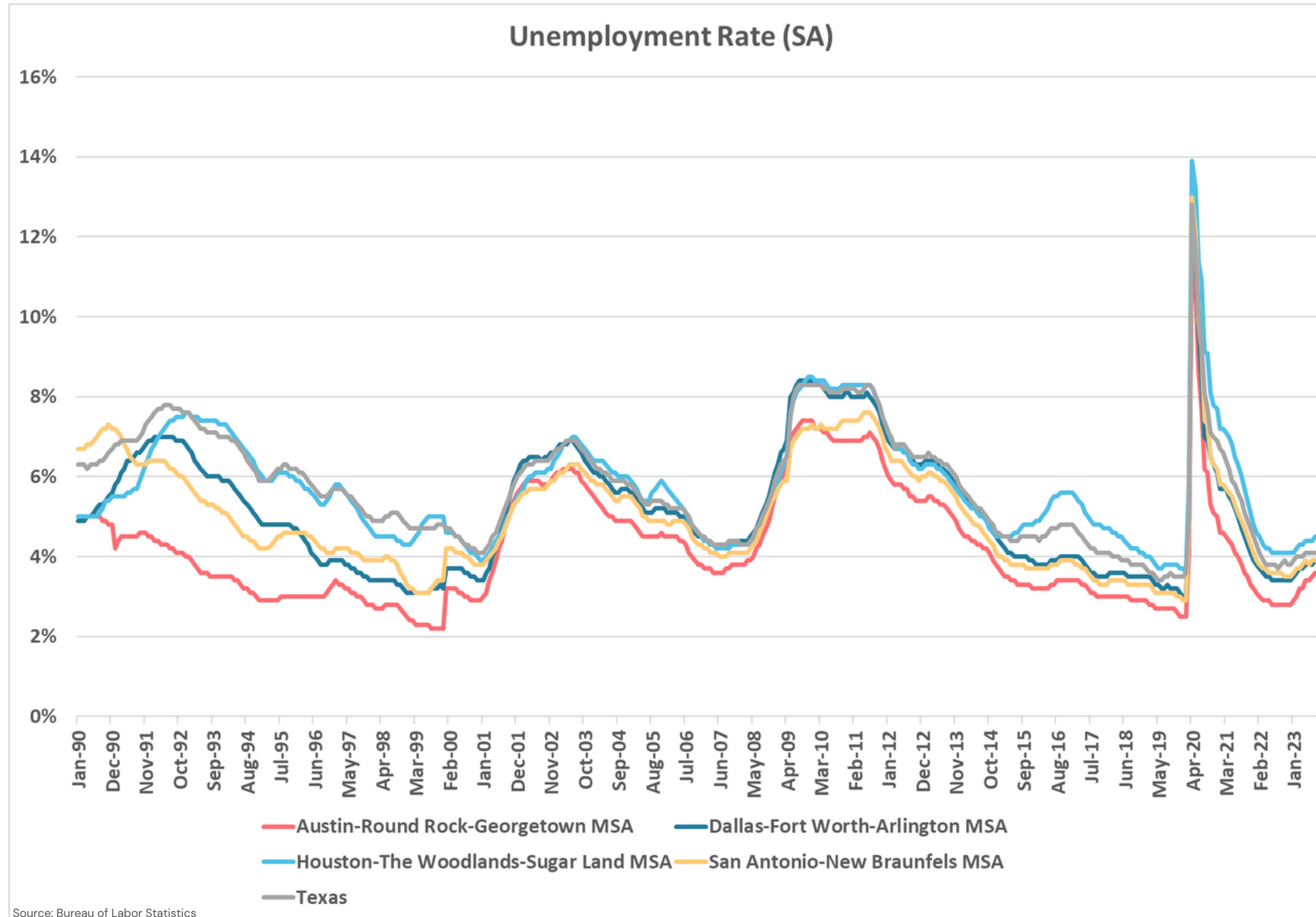
TEXAS LEADING INDEX

“sheds light on the future of the state's economy. The index is a composite of eight leading indicators—those that tend to change direction before the overall economy. They include the Texas value of the dollar, U.S. leading index, real oil price, well permits, initial claims for unemployment insurance, Texas stock index, help-wanted index and average weekly hours worked in manufacturing.”



Source: Federal Reserve Bank of Dallas

UNEMPLOYMENT RATE REMAINS LOW

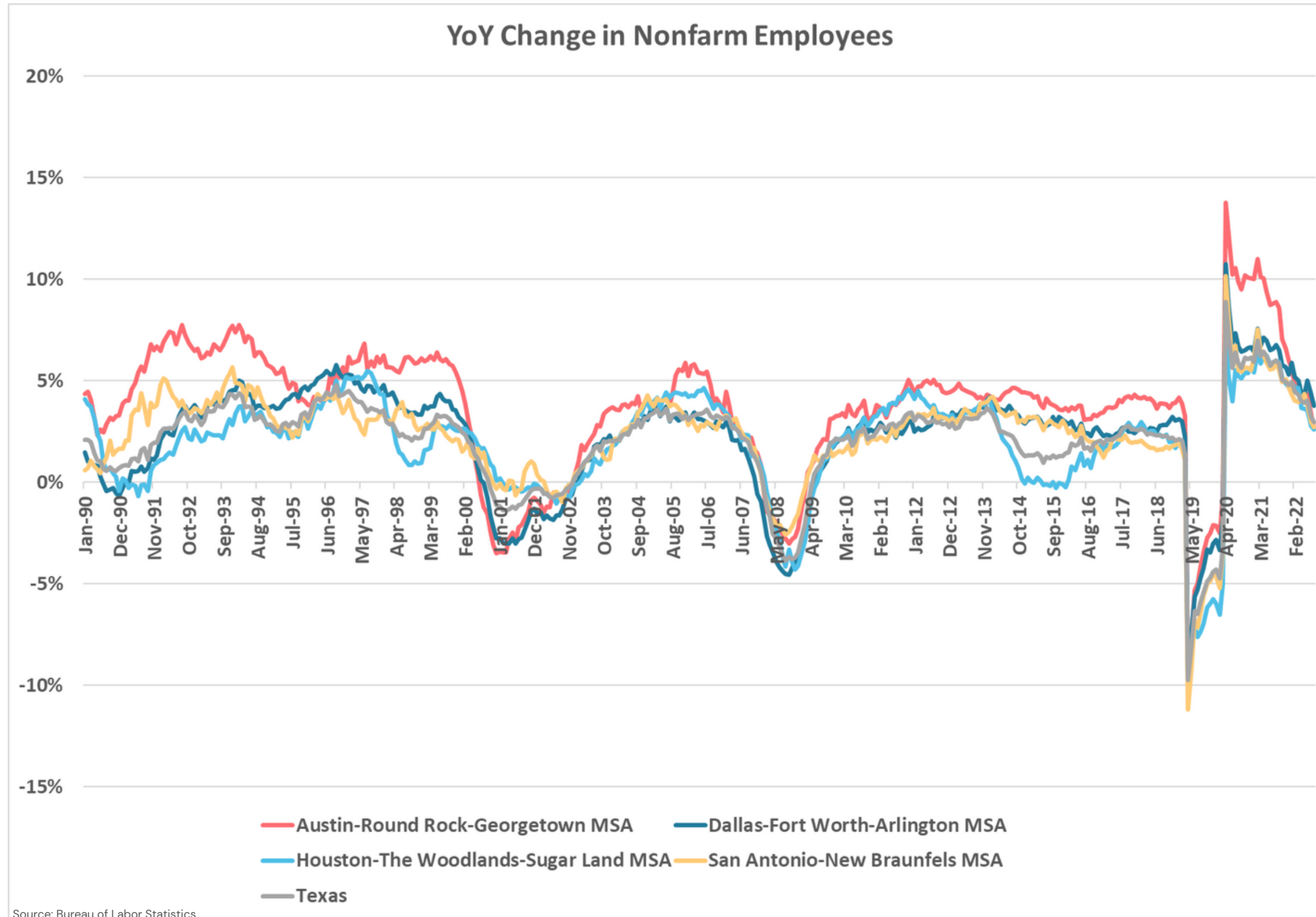


UNEMPLOYMENT RATE REMAINS LOW

	Texas	Austin-Round Rock-Georgetown MSA	Dallas-Fort Worth-Arlington MSA	Houston-The Woodlands-Sugar Land MSA	San Antonio-New Braunfels MSA
Aug-11	8.2%	7.0%	7.9%	8.2%	7.5%
Aug-12	6.6%	5.5%	6.5%	6.4%	6.1%
Aug-13	6.3%	5.2%	6.1%	6.0%	5.8%
Aug-14	5.1%	4.2%	5.0%	5.0%	4.6%
Aug-15	4.5%	3.3%	4.0%	4.7%	3.8%
Aug-16	4.7%	3.4%	3.9%	5.5%	3.8%
Aug-17	4.2%	3.1%	3.6%	4.8%	3.4%
Aug-18	3.8%	2.9%	3.5%	4.2%	3.3%
Aug-19	3.5%	2.7%	3.3%	3.8%	3.1%
Aug-20	8.1%	6.2%	7.0%	9.1%	7.4%
Aug-21	5.4%	3.8%	4.7%	6.0%	4.9%
Aug-22	3.7%	2.8%	3.4%	4.1%	3.6%
Aug-23	4.1%	3.6%	3.9%	4.5%	3.9%

Source: Bureau of Labor Statistics

JOB GROWTH SLOWING



JOB GROWTH SLOWING

	Texas	Austin-Round Rock-Georgetown MSA	Dallas-Fort Worth-Arlington MSA	Houston-The Woodlands-Sugar Land MSA	San Antonio-New Braunfels MSA
Aug-11	2.5%	3.7%	2.9%	2.8%	2.4%
Aug-12	2.9%	4.0%	2.5%	4.2%	2.9%
Aug-13	2.9%	4.8%	3.2%	3.4%	3.0%
Aug-14	3.2%	4.3%	3.4%	3.6%	3.3%
Aug-15	2.3%	4.6%	3.5%	1.3%	3.4%
Aug-16	1.2%	3.9%	2.9%	-0.2%	3.0%
Aug-17	1.7%	3.1%	2.4%	1.1%	2.0%
Aug-18	2.7%	4.2%	2.7%	2.7%	2.3%
Aug-19	2.3%	3.9%	2.8%	2.2%	1.6%
Aug-20	-5.9%	-4.2%	-4.7%	-7.4%	-6.4%
Aug-21	5.8%	9.9%	6.7%	5.2%	5.5%
Aug-22	6.0%	8.9%	6.8%	6.0%	5.9%
Aug-23	3.0%	2.7%	3.8%	2.6%	2.7%

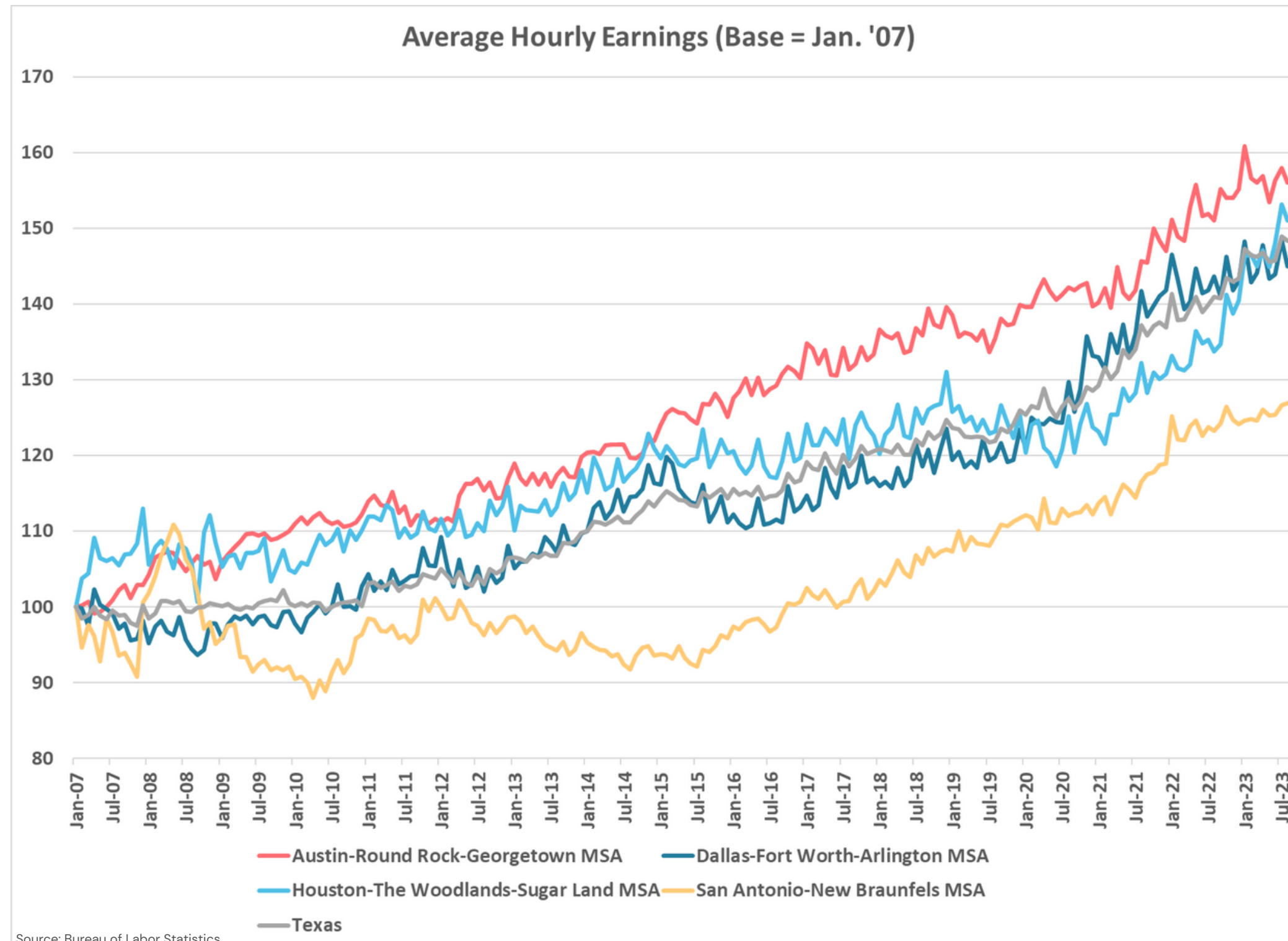
Source: Bureau of Labor Statistics

JOB GROWTH VARIES BY SECTOR AND GEOGRAPHY

	Texas	Austin-Round Rock-Georgetown MSA	Dallas-Fort Worth-Arlington MSA	Houston-The Woodlands-Sugar Land MSA	San Antonio-New Braunfels MSA
Mining, Logging and Construction	4.0%	6.7%	8.4%	-1.1%	3.1%
Manufacturing	3.3%	3.4%	3.3%	3.2%	-1.6%
Trade, Transportation, and Utilities	1.9%	0.1%	1.7%	3.8%	0.9%
Information	2.3%	0.2%	3.8%	0.3%	2.1%
Financial Activities	4.0%	0.1%	4.2%	4.4%	3.2%
Professional and Business Services	1.2%	3.7%	3.5%	2.1%	-0.9%
Private Education and Health Services	4.4%	1.3%	3.3%	5.3%	3.6%
Leisure and Hospitality	3.8%	5.3%	2.9%	2.4%	3.8%
Other Services	5.4%	4.2%	12.3%	0.8%	3.0%
Government	2.8%	0.3%	4.6%	1.6%	4.9%

Source: Bureau of Labor Statistics

AUSTIN LEADS STATE IN GROWTH IN HOURLY EARNINGS



AVERAGE HOURLY EARNINGS IN TEXAS MEASURES ABOVE HISTORICAL AVG. IN '23

	YoY % Change in Average Hourly Earnings				
	Texas	Austin-Round Rock-Georgetown MSA	Dallas-Fort Worth-Arlington MSA	Houston-The Woodlands-Sugar Land MSA	San Antonio-New Braunfels MSA
Aug-12	0.4%	4.1%	-1.9%	0.7%	1.0%
Aug-13	3.6%	1.8%	5.1%	2.9%	-2.1%
Aug-14	4.2%	2.0%	6.8%	3.9%	-2.7%
Aug-15	3.5%	5.9%	1.4%	5.0%	2.9%
Aug-16	-0.4%	1.9%	-4.0%	-5.2%	3.1%
Aug-17	3.4%	1.6%	3.8%	2.2%	3.5%
Aug-18	2.4%	3.4%	2.4%	4.0%	4.9%
Aug-19	0.4%	-0.2%	1.0%	-0.9%	3.5%
Aug-20	4.6%	4.9%	8.3%	1.6%	2.4%
Aug-21	7.6%	2.4%	9.2%	5.6%	4.0%
Aug-22	2.7%	3.7%	1.4%	1.2%	5.8%
Aug-23	5.3%	3.4%	0.9%	13.0%	2.9%

Source: Bureau of Labor Statistics

POPULATION OF TEXAS EXPECTED TO GROW BY NEARLY 6 MILLION BY 2038

	Texas	Austin-Round Rock-Georgetown MSA	Dallas-Fort Worth- Arlington MSA	Houston-The Woodlands- Sugar Land MSA	San Antonio- New Braunfels MSA
2028	6.3%	13.1%	7.3%	7.1%	8.0%
2033	12.7%	26.7%	14.8%	14.4%	16.5%
2038	19.1%	40.8%	22.4%	21.8%	25.3%

Source: Texas Demographic Center



THE TEXAS HOUSING MARKET

**AFFORDABILITY CONSTRAINTS
AMID HIGHER RATE
ENVIRONMENT**

**LIMITED SUPPLY OF
AFFORDABLE HOMES DRAG ON
FIRST-TIME BUYERS**

**SINGLE-FAMILY
CONSTRUCTION PERSISTS
AMID HIGHER RATES**

**MORTGAGE ORIGINATIONS
DOWN AMID HIGHER RATES;
TIGHTENED CREDIT STANDARDS**



HOUSING IS THE MOST INTEREST RATE-SENSITIVE SECTOR IN THE ECONOMY

30-Year Fixed Mortgage Rate



Source: Freddie Mac, FRED

HIGHER MORTGAGE RATES DIMINISH HOME PURCHASING POTENTIAL

Mortgage Rate	Home Price-to-Income Multiplier	
	Repeat Buyers	First-Time Buyers
3%	4.0	4.1
4%	3.7	3.8
5%	3.5	3.5
6%	3.2	3.3
7%	3.0	3.1
7.63%	2.9	2.9
8%	2.8	2.9

Source: Freddie Mac, FRED, author's calculations

Median Sales Price (Aug. '23)	Required Income to Qualify for a Mortgage Loan for First-Time Buyers							
	Home Price	Mortgage Rate						
		3%	4%	5%	6%	7%	7.63%	8%
	\$200,000	\$49,252	\$53,007	\$56,987	\$61,175	\$65,549	\$68,391	\$70,089
	\$250,000	\$61,565	\$66,259	\$71,234	\$76,468	\$81,936	\$85,489	\$87,612
	\$300,000	\$73,878	\$79,510	\$85,481	\$91,762	\$98,323	\$102,587	\$105,134
San Antonio-New Braunfels MSA	\$319,900	\$78,779	\$84,785	\$91,151	\$97,849	\$104,845	\$109,392	\$112,108
Houston-The Woodlands-Sugar Land MSA	\$336,740	\$82,926	\$89,248	\$95,950	\$103,000	\$110,365	\$115,150	\$118,009
Texas	\$340,000	\$83,728	\$90,112	\$96,879	\$103,997	\$111,433	\$116,265	\$119,152
	\$350,000	\$86,191	\$92,762	\$99,728	\$107,056	\$114,710	\$119,685	\$122,656
Dallas-Fort Worth-Arlington MSA	\$400,000	\$98,504	\$106,014	\$113,975	\$122,349	\$131,098	\$136,782	\$140,178
	\$450,000	\$110,817	\$119,266	\$128,222	\$137,643	\$147,485	\$153,880	\$157,701
Austin-Round Rock-Georgetown MSA	\$455,456	\$112,161	\$120,712	\$129,776	\$139,312	\$149,273	\$155,746	\$159,613
	\$500,000	\$123,130	\$132,517	\$142,468	\$152,937	\$163,872	\$170,978	\$175,223
	\$600,000	\$147,756	\$159,021	\$170,962	\$183,524	\$196,646	\$205,174	\$210,268
	\$750,000	\$184,695	\$198,776	\$213,703	\$229,405	\$245,808	\$256,467	\$262,835

Source: Freddie Mac, FRED, author's calculations

>10 PERCENTAGE POINT DECLINE IN BUYERS WHO CAN QUALIFY FOR LOAN

Table 8. Percentage of Repeat Buyers Who Earned Required Qualifying Income by Mortgage Interest Rate

Year	Home Price	Mortgage Interest Rate						
		3%	4%	5%	5.62%	6%	6.5%	7%
3Q2011	\$144,150	72.4%	70.2%	67.8%	66.3%	65.4%	64.1%	62.8%
3Q2012	\$154,900	70.2%	67.8%	65.4%	63.8%	62.8%	61.6%	60.3%
3Q2013	\$170,000	67.1%	64.6%	62.1%	60.5%	59.5%	58.2%	56.8%
3Q2014	\$180,000	65.3%	62.8%	60.3%	58.6%	57.6%	56.2%	54.8%
3Q2015	\$191,000	63.4%	60.9%	58.2%	56.5%	55.4%	54.0%	52.5%
3Q2016	\$205,000	61.9%	59.3%	56.4%	54.6%	53.4%	51.9%	50.3%
3Q2017	\$218,000	60.9%	58.1%	55.2%	53.3%	52.0%	50.4%	48.8%
3Q2018	\$228,000	60.7%	57.8%	54.8%	52.8%	51.6%	50.2%	48.8%
3Q2019	\$235,800	60.8%	58.0%	54.9%	53.0%	51.9%	50.6%	49.2%
3Q2020	\$262,000	57.4%	54.2%	51.5%	49.7%	48.6%	47.1%	45.5%
3Q2021	\$310,000	51.3%	48.3%	45.0%	42.9%	41.7%	40.4%	39.1%
3Q2022	\$340,000	48.4%	45.0%	42.0%	40.3%	39.2%	37.7%	36.3%

Note: Assumes a 30-year loan term, 80 percent LTV ratio, 30 percent DTI ratio, and additional costs of homeownership at 4 percent of home price. As repeat homebuyers constitute owner-occupied households, this table reflects income data solely for owner-occupied households.

Sources: American Community Survey, U.S. Census Bureau, and Texas Real Estate Research Center at Texas A&M University

Source: Texas Real Estate Research Center at Texas A&M University

HIGHER MORTGAGE RATES LENGTHEN TIME TO BREAKEVEN ON INVESTMENT

Table 1. Breakdown Between Mortgage Principal and Interest by Interest Rate

End of Year	Mortgage Balance		Principal		Interest	
	3% Rate	6% Rate	3% Rate	6% Rate	3% Rate	6% Rate
1	\$232,942	\$234,845	\$4,558	\$2,655	\$8,240	\$15,359
2	\$228,222	\$232,013	\$4,720	\$2,832	\$8,078	\$15,182
3	\$223,334	\$228,991	\$4,888	\$3,022	\$7,910	\$14,992
4	\$218,272	\$225,766	\$5,062	\$3,224	\$7,736	\$14,789
5	\$213,031	\$222,326	\$5,242	\$3,440	\$7,556	\$14,574
6	\$207,602	\$218,655	\$5,428	\$3,671	\$7,370	\$14,343
7	\$201,981	\$214,739	\$5,621	\$3,917	\$7,176	\$14,097
8	\$196,160	\$210,560	\$5,821	\$4,179	\$6,977	\$13,835
9	\$190,132	\$206,101	\$6,028	\$4,459	\$6,769	\$13,555
10	\$183,889	\$201,343	\$6,243	\$4,757	\$6,555	\$13,256
Total	-	-	\$53,611	\$36,157	\$74,367	\$143,983

Notes: Assumes a purchase price of \$250,000, 30-year loan term, 0.5 percent mortgage insurance premium, and 95 percent loan-to-value ratio.

Source: Texas Real Estate Research Center at Texas A&M University

Source: Texas Real Estate Research Center at Texas A&M University

HIGHER MORTGAGE RATES LENGTHEN TIME TO BREAK-EVEN ON INVESTMENT

Table 4. Breakdown Among Initial Costs, Cash Outflows, and Proceeds from Sale by Mortgage Interest Rate

End of Year	Initial Investment	Cash Outflows		Proceeds from Sale	
		3% Rate	6% Rate	3% Rate	6% Rate
1	\$17,500	\$25,298	\$30,514	\$11,458	\$9,555
2	\$17,500	\$25,798	\$31,014	\$25,954	\$22,163
3	\$17,500	\$26,318	\$31,534	\$41,009	\$35,352
4	\$17,500	\$26,859	\$32,075	\$56,644	\$49,150
5	\$17,500	\$27,421	\$32,637	\$72,883	\$63,587
6	\$17,500	\$28,006	\$33,222	\$89,748	\$78,695
7	\$17,500	\$28,614	\$33,830	\$107,263	\$94,505
8	\$17,500	\$29,247	\$34,463	\$125,454	\$111,054
9	\$17,500	\$29,905	\$35,121	\$144,347	\$128,378
10	\$17,500	\$30,589	\$35,805	\$163,969	\$146,514

Note: Reflects assumptions listed in Table 2.

Source: Texas Real Estate Research Center at Texas A&M University

Source: Texas Real Estate Research Center at Texas A&M University

HIGHER MORTGAGE RATES LENGTHEN TIME TO BREAK-EVEN ON INVESTMENT

Table 3. Rate of Return on Homeownership by Mortgage Interest Rate

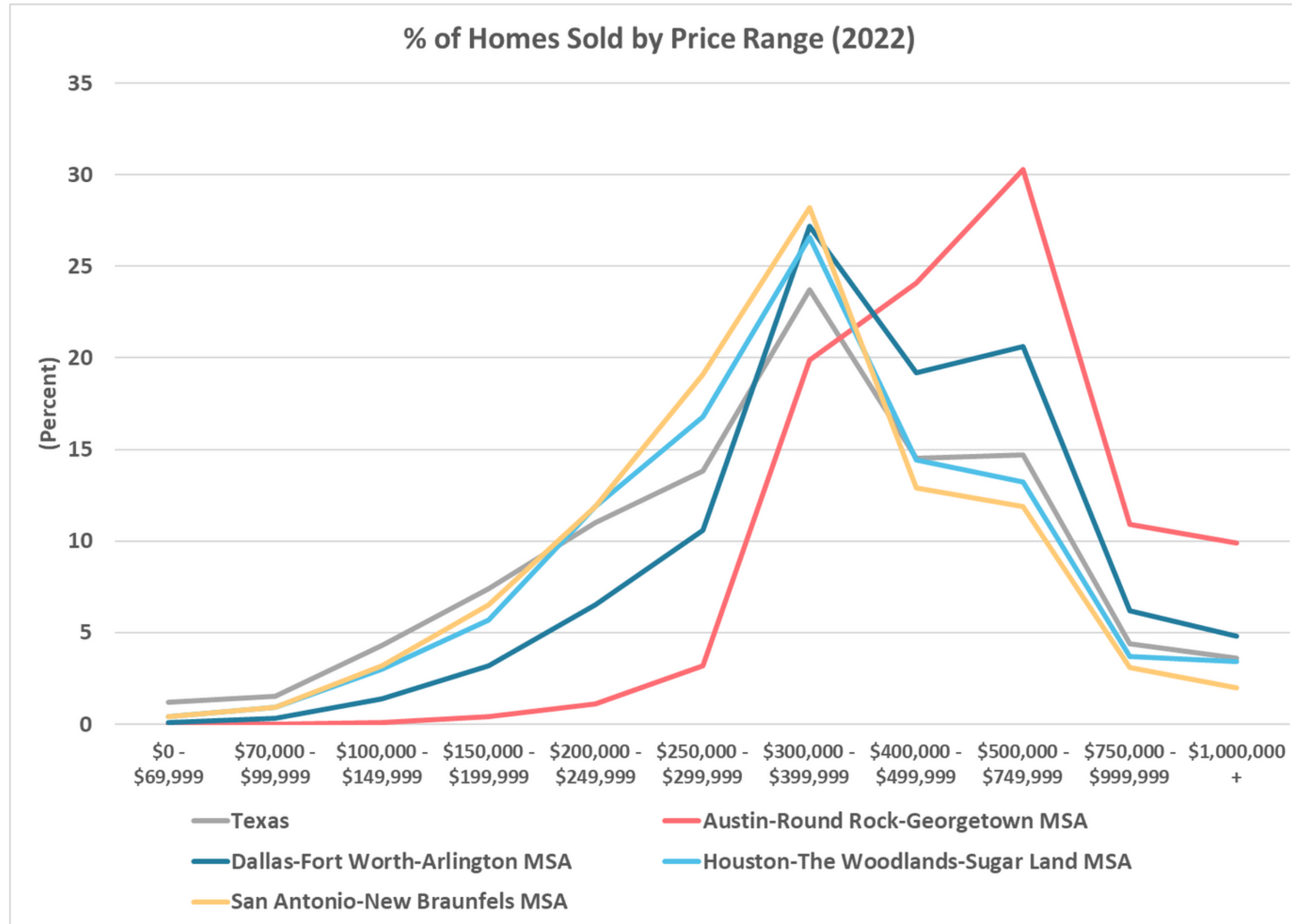
End of Year	Mortgage Interest Rate	
	3%	6%
1	-55.7%	-96.3%
2	3.6%	-33.7%
3	18.3%	-10.7%
4	22.0%	-1.5%
5	22.7%	2.9%
6	22.3%	5.3%
7	21.6%	6.6%
8	20.8%	7.4%
9	20.0%	7.9%
10	19.3%	8.2%
15	16.5%	8.7%
20	14.8%	8.7%
25	13.6%	8.6%
30	12.8%	8.5%

Note: Reflects assumptions listed in Table 2.

Source: Texas Real Estate Research Center at Texas A&M University

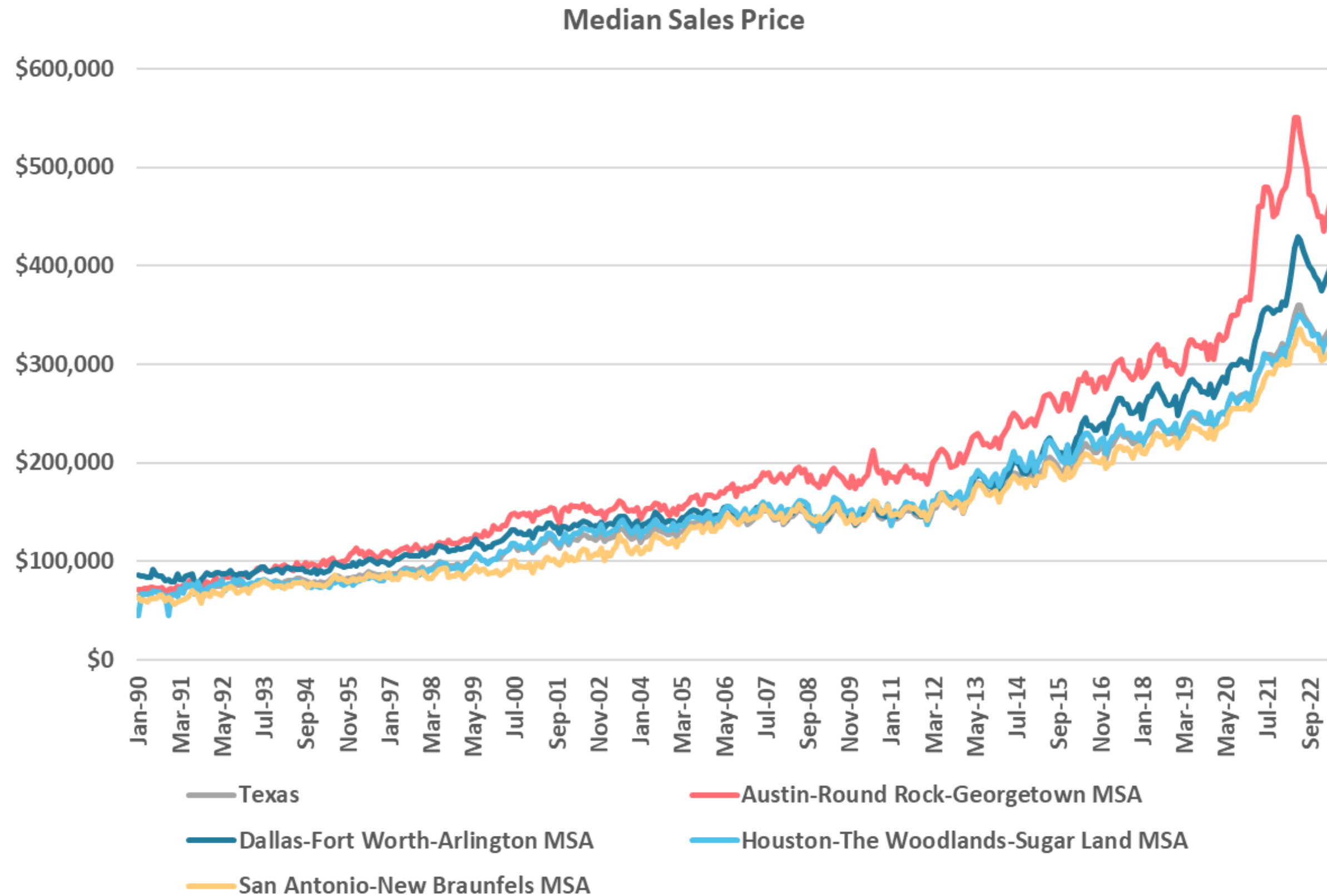
Source: Texas Real Estate Research Center at Texas A&M University

<25% OF HOMES SOLD FOR UNDER \$250,000 IN 2022



Source: Texas Real Estate Research Center at Texas A&M University

DECLINE IN HOME PRICES DUE TO HIGHER RATE ENVIRONMENT



DECLINE IN HOME PRICES DUE TO HIGHER RATE ENVIRONMENT

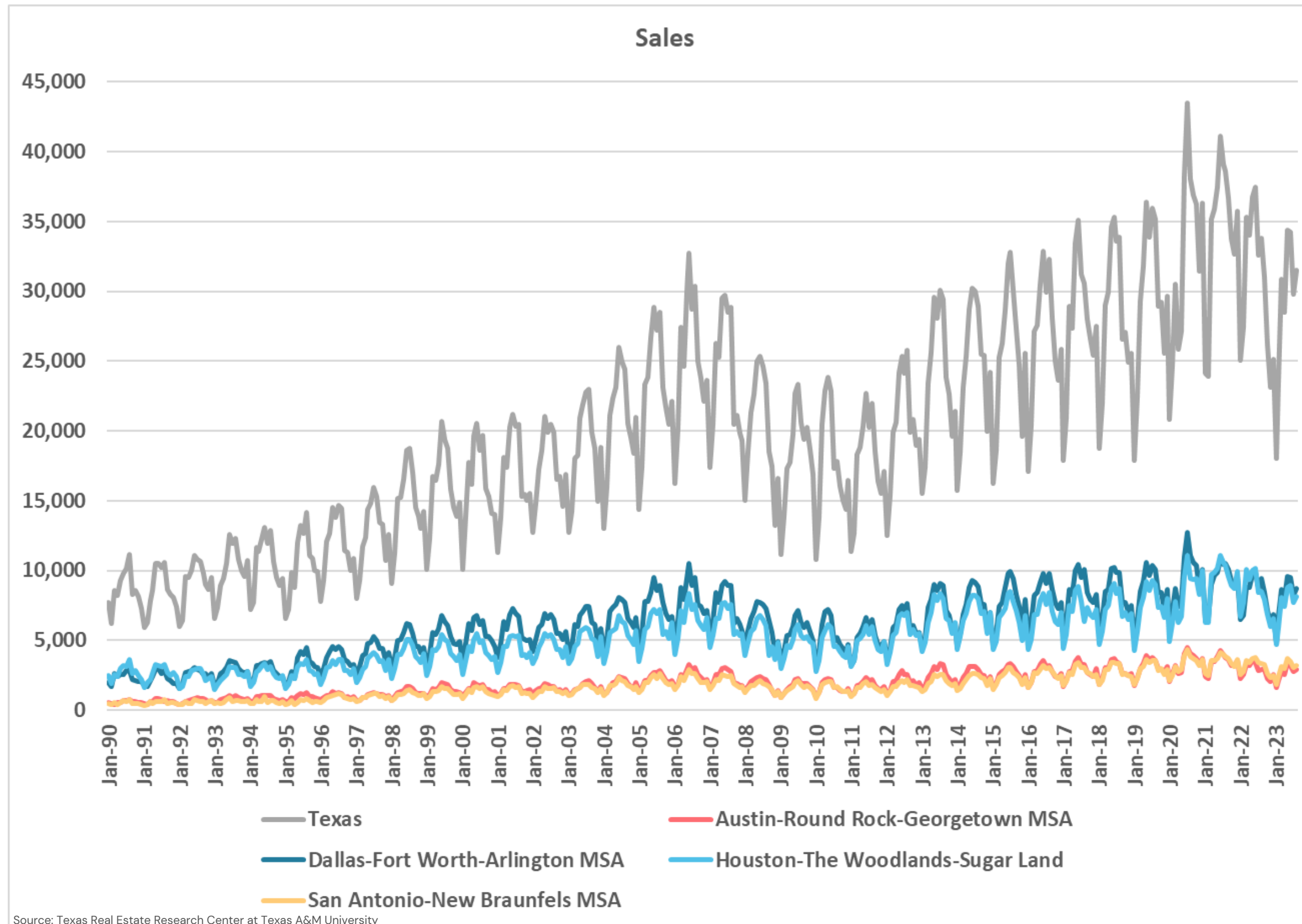
Month	YoY Change in Median Sales Price				
	Texas	Austin-Round Rock-Georgetown MSA	Dallas-Fort Worth-Arlington MSA	Houston-The Woodlands-Sugar Land MSA	San Antonio-New Braunfels MSA
Aug-11	-0.5%	-0.9%	-0.6%	0.3%	-4.3%
Aug-12	5.9%	7.3%	5.7%	4.1%	4.6%
Aug-13	9.4%	5.6%	11.4%	13.3%	9.4%
Aug-14	6.9%	11.6%	7.0%	9.5%	2.9%
Aug-15	7.0%	6.9%	8.8%	5.1%	8.3%
Aug-16	7.5%	9.3%	10.2%	4.7%	5.6%
Aug-17	5.6%	3.1%	9.1%	2.2%	4.4%
Aug-18	4.0%	7.5%	3.5%	2.8%	5.8%
Aug-19	3.8%	12.0%	11.2%	10.7%	14.1%
Aug-20	8.3%	9.6%	7.9%	6.4%	9.0%
Aug-21	16.9%	34.3%	18.3%	15.3%	14.5%
Aug-22	10.9%	5.9%	14.1%	11.2%	10.1%
Aug-23	-1.1%	-8.5%	-1.2%	-0.9%	-0.5%

HOME PRICES REMAIN ELEVATED RELATIVE TO PRE-PANDEMIC AND PANDEMIC LEVELS

	% Change in Median Sales Price Relative to Aug. '23				
	Texas	Austin-Round Rock-Georgetown MSA	Dallas-Fort Worth-Arlington MSA	Houston-The Woodlands-Sugar Land MSA	San Antonio-New Braunfels MSA
Aug-19	38.8%	42.7%	43.9%	35.2%	36.7%
Aug-20	28.2%	30.1%	33.3%	27.1%	25.5%
Aug-21	9.7%	-3.1%	12.7%	10.2%	9.6%
Aug-22	-1.1%	-8.5%	-1.2%	-0.9%	-0.5%

Source: Texas Real Estate Research Center at Texas A&M University

DECLINE IN SALES A FACTOR OF HIGHER RATE ENVIRONMENT



DECLINE IN SALES A FACTOR OF HIGHER RATE ENVIRONMENT

Month	YoY Change in Sales				
	Texas	Austin-Round Rock-Georgetown MSA	Dallas-Fort Worth-Arlington MSA	Houston-The Woodlands-Sugar Land MSA	San Antonio-New Braunfels MSA
Aug-11	23.1%	32.7%	25.2%	31.3%	9.1%
Aug-12	17.4%	18.1%	17.9%	17.7%	18.0%
Aug-13	14.1%	26.2%	17.2%	14.5%	16.4%
Aug-14	-1.6%	-10.5%	-1.4%	-0.6%	1.9%
Aug-15	3.9%	6.8%	6.7%	-2.6%	4.5%
Aug-16	7.3%	3.0%	4.3%	8.3%	13.4%
Aug-17	-5.4%	1.8%	2.3%	-24.6%	-0.2%
Aug-18	10.9%	3.2%	-2.0%	37.2%	9.2%
Aug-19	3.7%	5.6%	2.5%	3.2%	7.5%
Aug-20	8.3%	13.0%	9.5%	4.6%	6.7%
Aug-21	1.4%	-6.3%	-5.1%	10.1%	0.5%
Aug-22	-12.3%	-23.1%	-10.2%	-17.6%	-12.4%
Aug-23	-6.9%	1.3%	-7.8%	-4.4%	-5.1%

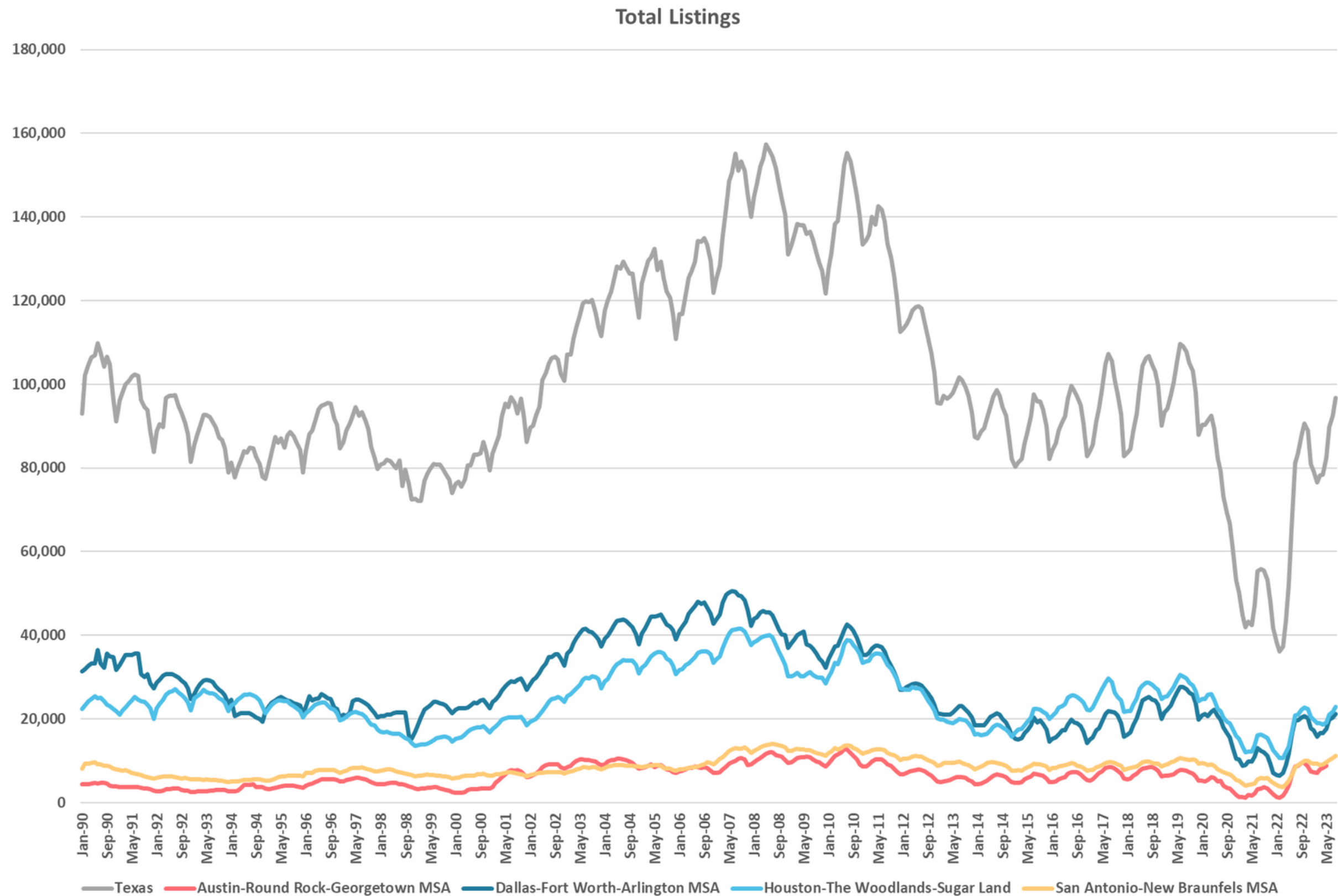
Source: Texas Real Estate Research Center at Texas A&M University

DECLINE IN SALES A FACTOR OF HIGHER RATE ENVIRONMENT

	% Change in Sales Relative to Aug. '23				
	Texas	Austin-Round Rock-Georgetown MSA	Dallas-Fort Worth-Arlington MSA	Houston-The Woodlands-Sugar Land MSA	San Antonio-New Braunfels MSA
Aug-19	-10.3%	-17.5%	-13.9%	-9.3%	-10.9%
Aug-20	-17.2%	-27.0%	-21.4%	-13.3%	-16.5%
Aug-21	-18.3%	-22.1%	-17.2%	-21.2%	-16.9%
Aug-22	-6.9%	1.3%	-7.8%	-4.4%	-5.1%

Source: Texas Real Estate Research Center at Texas A&M University

LISTINGS FOR SALE ON THE MARKET UP FROM PANDEMIC LOWS



LISTINGS FOR SALE ON THE MARKET UP FROM PANDEMIC LOWS

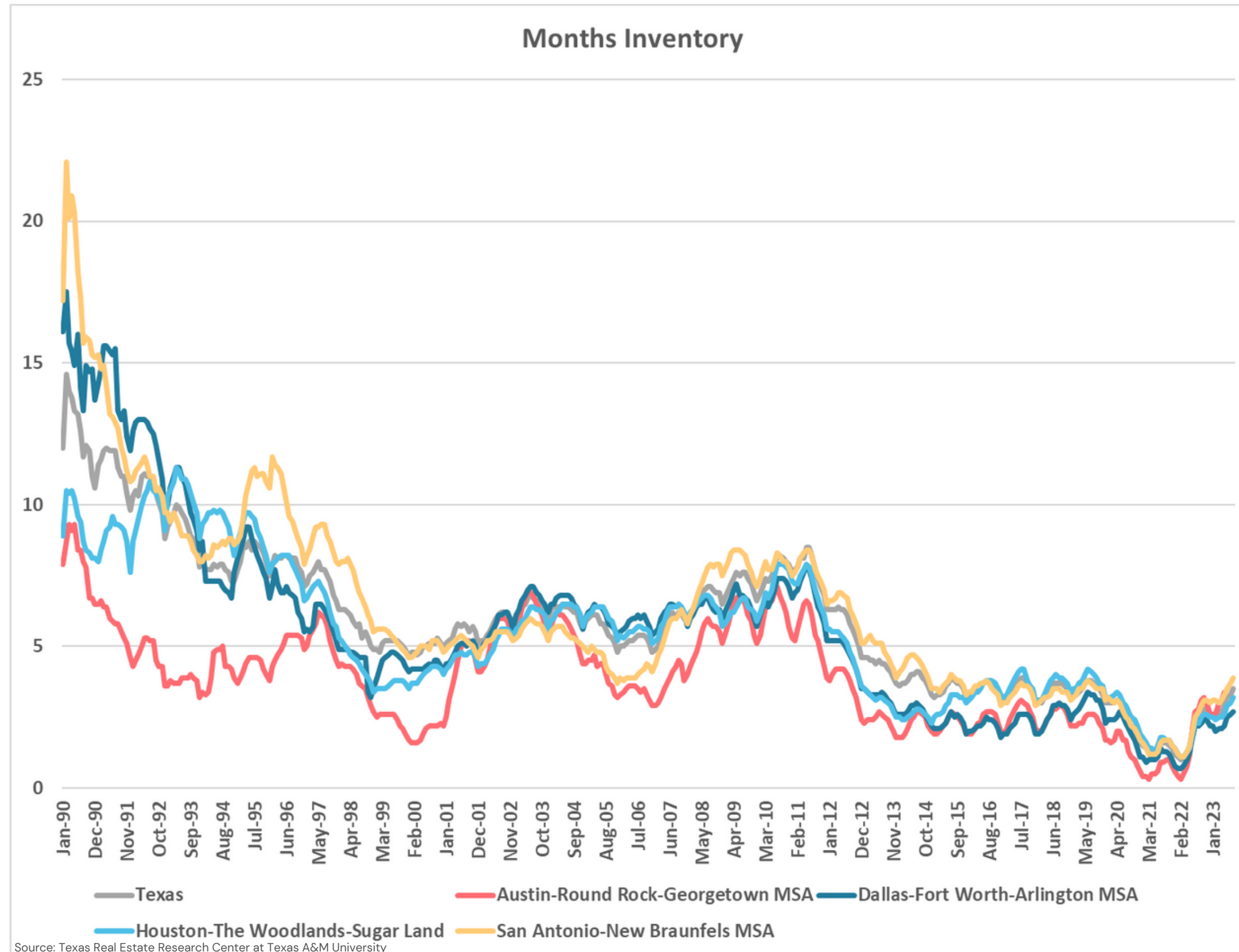
	YoY Change in Total Listings				
Month	Texas	Austin-Round Rock-Georgetown MSA	Dallas-Fort Worth-Arlington MSA	Houston-The Woodlands-Sugar Land MSA	San Antonio-New Braunfels MSA
Aug-11	-12.9%	-23.4%	-18.3%	-15.0%	-11.7%
Aug-12	-14.5%	-18.3%	-21.3%	-22.2%	-11.5%
Aug-13	-11.6%	-18.7%	-14.6%	-22.4%	-10.1%
Aug-14	-3.7%	10.6%	-8.7%	-6.9%	-1.4%
Aug-15	-1.3%	2.2%	-8.9%	21.1%	-1.8%
Aug-16	2.6%	5.9%	0.3%	14.1%	1.3%
Aug-17	7.3%	16.3%	13.5%	12.9%	3.8%
Aug-18	1.2%	1.7%	16.4%	-0.5%	2.2%
Aug-19	0.9%	-10.6%	7.1%	3.5%	5.6%
Aug-20	-32.1%	-46.0%	-33.8%	-31.7%	-30.4%
Aug-21	-23.7%	-19.9%	-30.8%	-19.6%	-17.8%
Aug-22	49.4%	168.2%	57.5%	28.6%	50.1%
Aug-23	16.0%	11.8%	8.2%	9.0%	24.4%

LISTINGS FOR SALE ON THE MARKET UP FROM PANDEMIC LOWS

	% Change in Total Listings Relative to Aug. '23				
	Texas	Austin-Round Rock-Georgetown MSA	Dallas-Fort Worth-Arlington MSA	Houston-The Woodlands-Sugar Land MSA	San Antonio-New Braunfels MSA
Aug-19	-10.2%	29.8%	-21.8%	-23.0%	6.9%
Aug-20	32.1%	140.2%	18.0%	12.8%	53.6%
Aug-21	73.2%	199.9%	70.5%	40.2%	86.8%
Aug-22	16.0%	11.8%	8.2%	9.0%	24.4%

Source: Texas Real Estate Research Center at Texas A&M University

SUPPLY OF HOMES STILL NOT COMMENSURATE WITH DEMAND



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	Months Inventory				
Month	Texas	Austin-Round Rocam-Georgetown MSA	Dallas-Fort Worth-Arlington MSA	Houston-The Woodlands-Sugar Land MSA	San Antonio-New Braunfels MSA
Aug-11	7.7	5.4	6.8	7.0	7.7
Aug-12	5.8	3.8	4.7	4.8	6.3
Aug-13	4.4	2.5	3.3	3.1	4.8
Aug-14	4.1	2.7	2.9	2.8	4.5
Aug-15	3.8	2.6	2.5	3.3	3.9
Aug-16	3.7	2.7	2.4	3.8	3.7
Aug-17	3.9	3.0	2.6	4.2	3.6
Aug-18	3.7	2.9	3.0	3.9	3.5
Aug-19	3.7	2.6	3.3	4.0	3.6
Aug-20	2.4	1.3	2.1	2.7	2.4
Aug-21	1.6	0.9	1.3	1.8	1.7
Aug-22	2.5	2.8	2.2	2.3	2.7
Aug-23	3.5	3.8	2.7	3.2	3.9

Source: Texas Real Estate Research Center at Texas A&M University

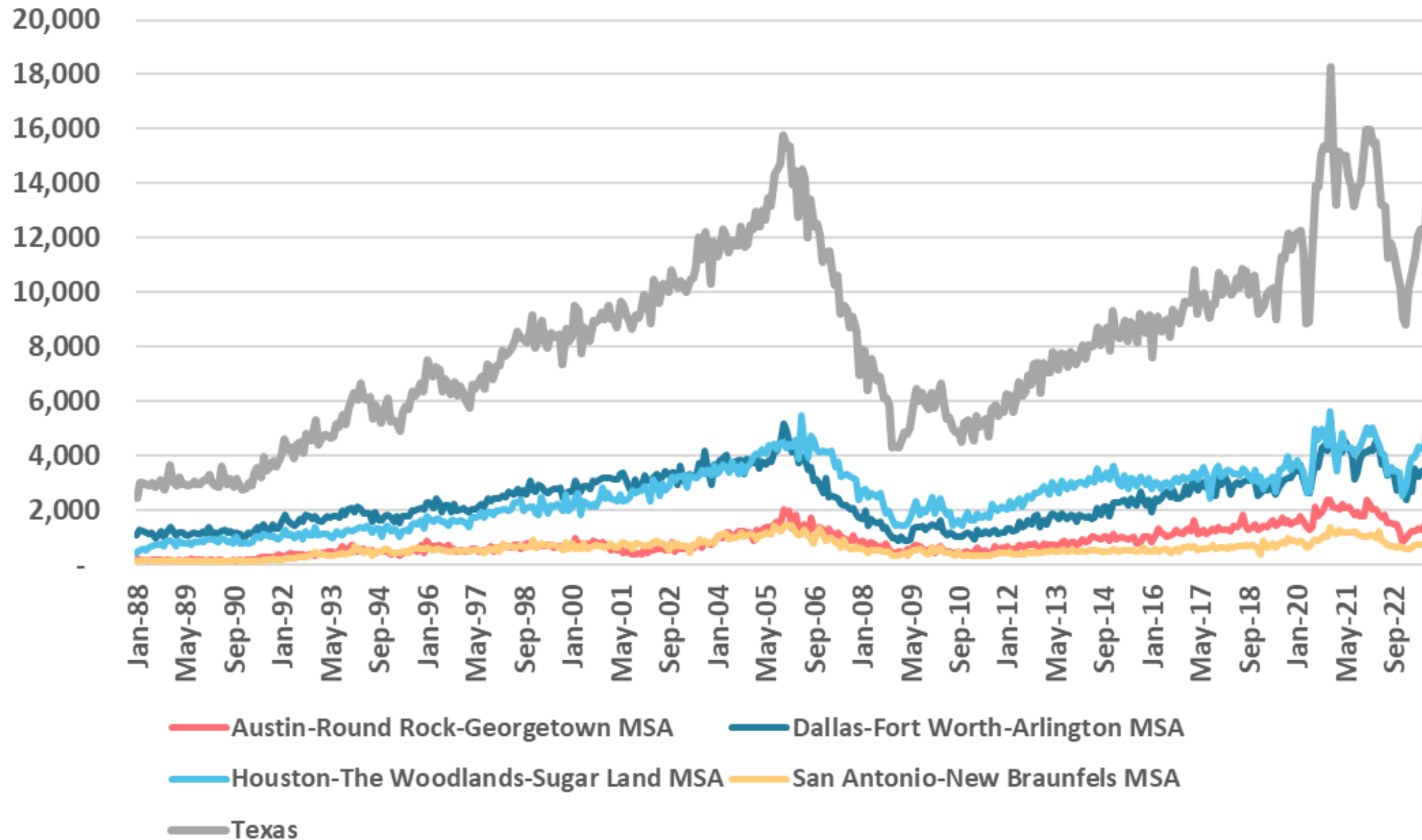
MONTHS INVENTORY UP FROM PANDEMIC LOWS, BUT REMAINS BELOW LEVELS THAT WOULD SUPPORT DEMAND

	% Change in Months Inventory Relative to Aug. '23				
	Texas	Austin-Round Rock-Georgetown MSA	Dallas-Fort Worth-Arlington MSA	Houston-The Woodlands-Sugar Land MSA	San Antonio-New Braunfels MSA
Aug-19	-5.4%	46.2%	-18.2%	-20.0%	8.3%
Aug-20	45.8%	192.3%	28.6%	18.5%	62.5%
Aug-21	118.8%	322.2%	107.7%	77.8%	129.4%
Aug-22	40.0%	35.7%	22.7%	39.1%	44.4%

Source: Texas Real Estate Research Center at Texas A&M University

INVENTORY FOR SALE ON THE MARKET UP FROM PANDEMIC LOWS

Permits for New 1-Unit Housing Structures



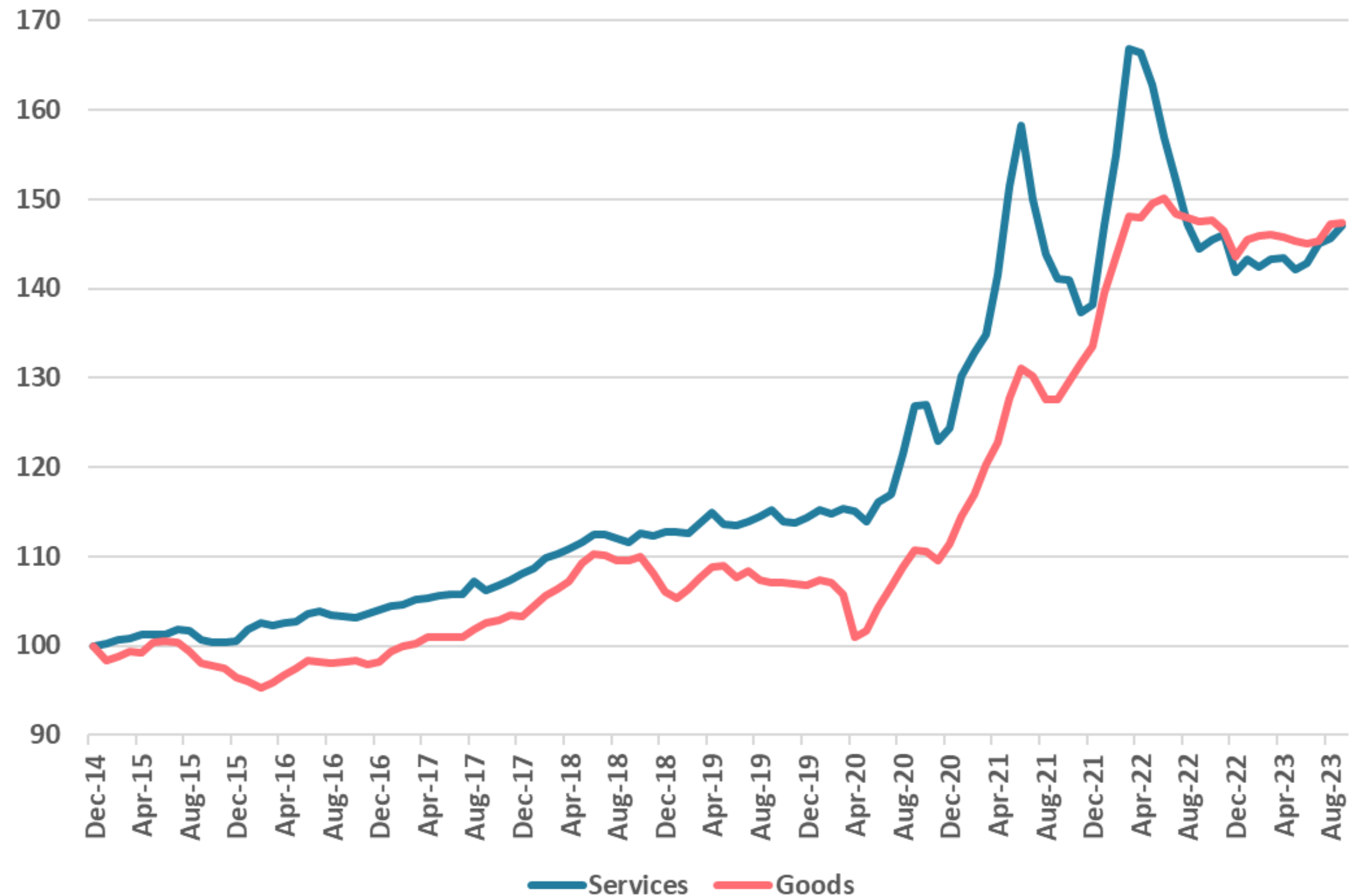
NEW SINGLE-FAMILY PERMITS RESILIENT TO HIGHER RATE ENVIRONMENT

	% Change in New 1-Unit Permits Relative to Aug. '23				
	Texas	Austin-Round Rock-Georgetown MSA	Dallas-Fort Worth-Arlington MSA	Houston-The Woodlands-Sugar Land MSA	San Antonio-New Braunfels MSA
Aug-11	135.6%	224.7%	195.6%	124.5%	92.2%
Aug-12	93.8%	122.9%	118.2%	96.6%	60.7%
Aug-13	74.8%	87.5%	103.6%	70.7%	39.2%
Aug-14	67.2%	76.4%	94.7%	59.5%	59.3%
Aug-15	64.9%	112.7%	65.5%	74.0%	54.0%
Aug-16	43.9%	46.8%	33.1%	62.7%	39.6%
Aug-17	48.7%	33.6%	24.5%	105.8%	20.1%
Aug-18	25.3%	14.8%	16.9%	45.4%	-1.0%
Aug-19	19.0%	-7.3%	18.7%	41.1%	-11.7%
Aug-20	-2.6%	-8.1%	0.8%	8.9%	-15.1%
Aug-21	2.4%	-12.2%	16.0%	23.3%	-40.0%
Aug-22	14.3%	6.3%	6.7%	39.4%	11.4%

Source: U.S. Census Bureau

HIGHER RATES AND SUPPLY CONSTRAINTS LOWER HOME BUILDER CONFIDENCE

Producer Price Index, Single-Family Residential Construction



GROWTH IN CONSTRUCTION COSTS SLOWING, BUT COSTS REMAIN ELEVATED RELATIVE TO PRE-PANDEMIC LEVELS

	% Change in PPI (Services) Relative to Sept. '23	% Change in PPI (Goods) Relative to Sept. '23
Sep-15	46.0%	50.0%
Sep-16	42.3%	49.7%
Sep-17	38.4%	43.3%
Sep-18	31.7%	34.1%
Sep-19	27.6%	37.2%
Sep-20	15.9%	32.8%
Sep-21	4.2%	15.2%
Sep-22	1.7%	-0.3%

Source: Bureau of Labor Statistics

RELATIVE TO SEPT. '19, NEW HOME PRICES UP 18-21% FROM CONSTRUCTION COSTS ALONE

		Increase in New Home Price Based on Increase in PPI			
Increase in PPI	% Increase in Price	Initial Price of \$200,000	Initial Price of \$300,000	Initial Price of \$400,000	Initial Price of \$500,000
2%	1.2%	\$2,400	\$3,600	\$4,800	\$6,000
5%	3%	\$6,000	\$9,000	\$12,000	\$15,000
10%	6%	\$12,000	\$18,000	\$24,000	\$30,000
15%	9%	\$18,000	\$27,000	\$36,000	\$45,000
25%	15%	\$30,000	\$45,000	\$60,000	\$75,000
30%	18%	\$36,000	\$54,000	\$72,000	\$90,000
35%	21%	\$42,000	\$63,000	\$84,000	\$105,000
40%	24%	\$48,000	\$72,000	\$96,000	\$120,000
45%	27%	\$54,000	\$81,000	\$108,000	\$135,000

Source: Bureau of Labor Statistics; author's calculations

HOME PURCHASING POTENTIAL REMAINS AN ACUTE CONCERN FOR LOWER-INCOME HOUSEHOLDS IN TEXAS

Income Cohort	Income Range	Affordable Home Price Range	Demand for Homes	Supply of Homes	(Under) or Oversupply of Homes
0-30%	\$0 - \$26,700	\$0 - \$77,853	17.0%	1.6%	-15.4%
31-50%	\$26,701 - \$44,450	\$77,854 - \$129,609	13.6%	3.7%	-10.0%
51-80%	\$44,451 - \$71,200	\$129,610 - \$207,608	18.5%	10.8%	-7.7%
81-120%	\$71,201 - \$85,440	\$207,609 - \$249,129	7.8%	9.1%	1.3%
121%+	\$85,441+	\$249,130+	43.0%	74.8%	31.8%

Source: Department of Housing & Urban Development, Census Bureau, author's calculations, Texas Real Estate Research Center at Texas A&M University

SUMMARY

- The broader economy remains resilient amid a higher rate environment, posing additional challenges for the Fed.
- The Texas job market remains well-positioned to withstand broader macroeconomic turbulence.
- Higher mortgage rates constraining affordability; contributing to a decline in home sales.
- Affordability remains most constrained for lower-income households (households earning no more than 80% of area median income).





THANK YOU

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