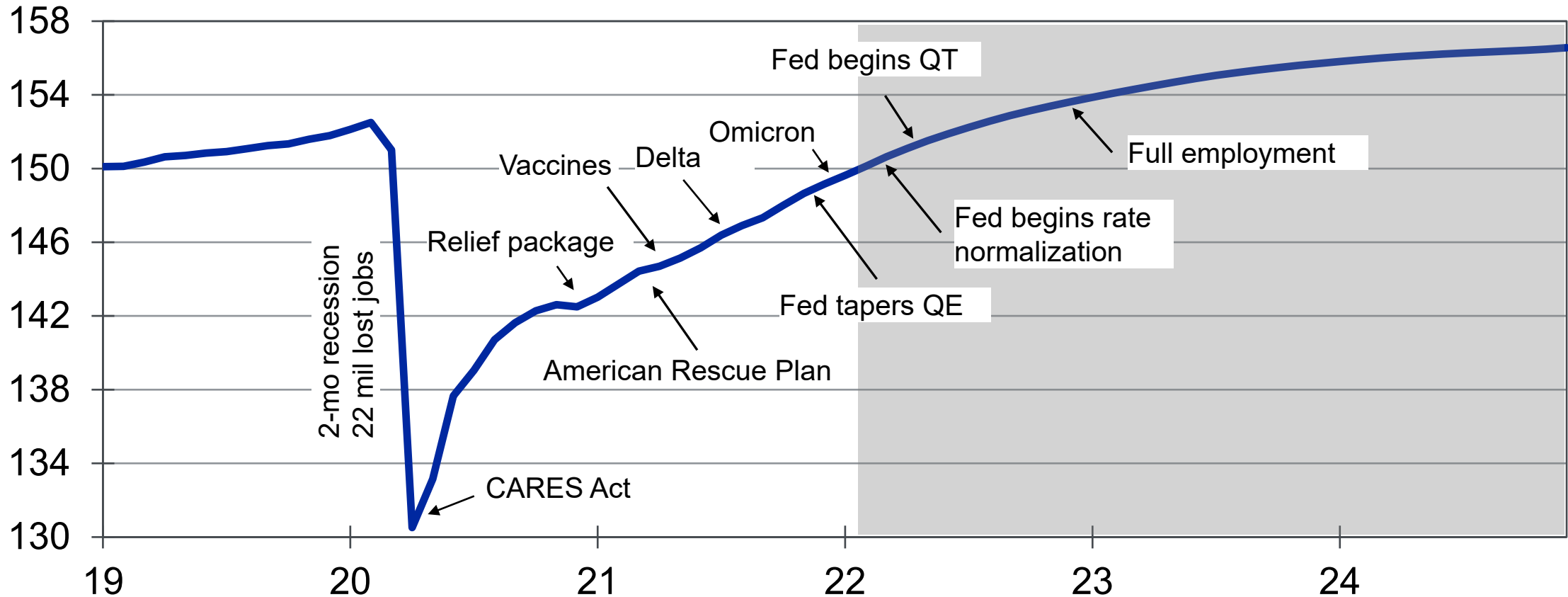


# Navigating the Post-Pandemic Crosswinds

# Looking For a Soft Economic Landing...

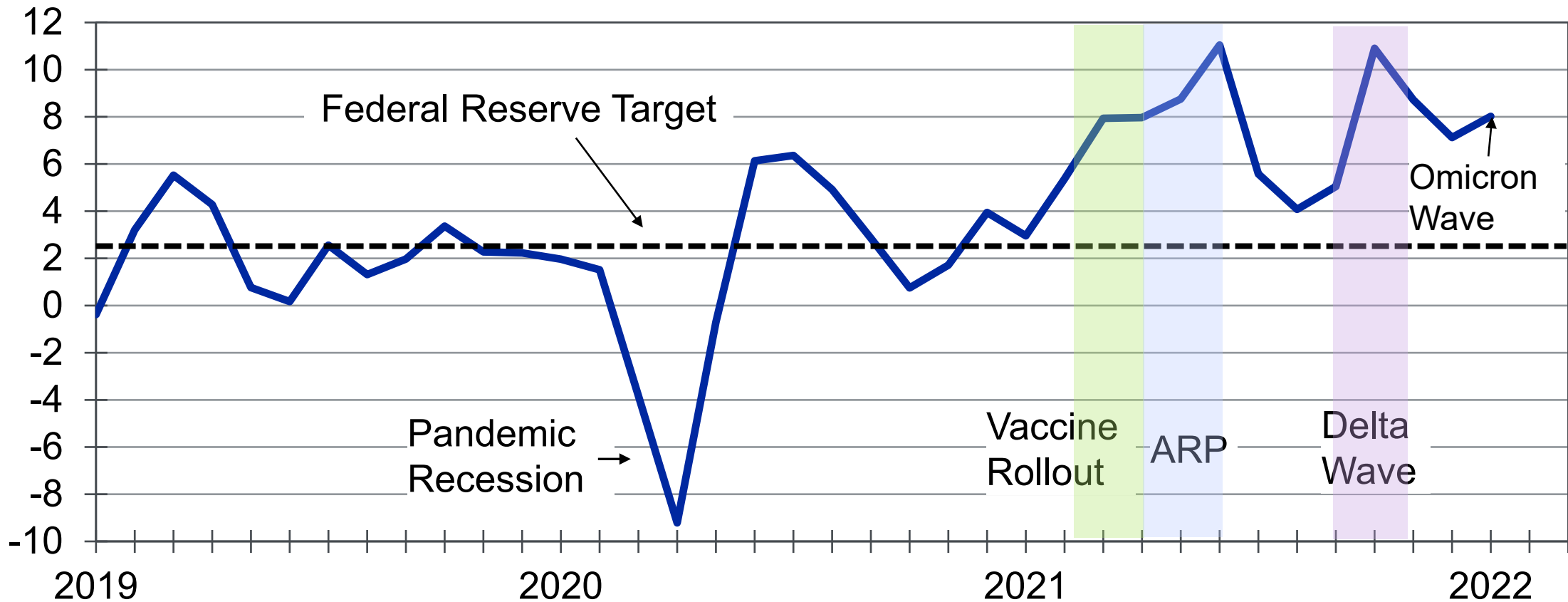
Nonfarm employment, mil



Sources: BLS, Moody's Analytics

# ...But It Is Getting Bumpy...

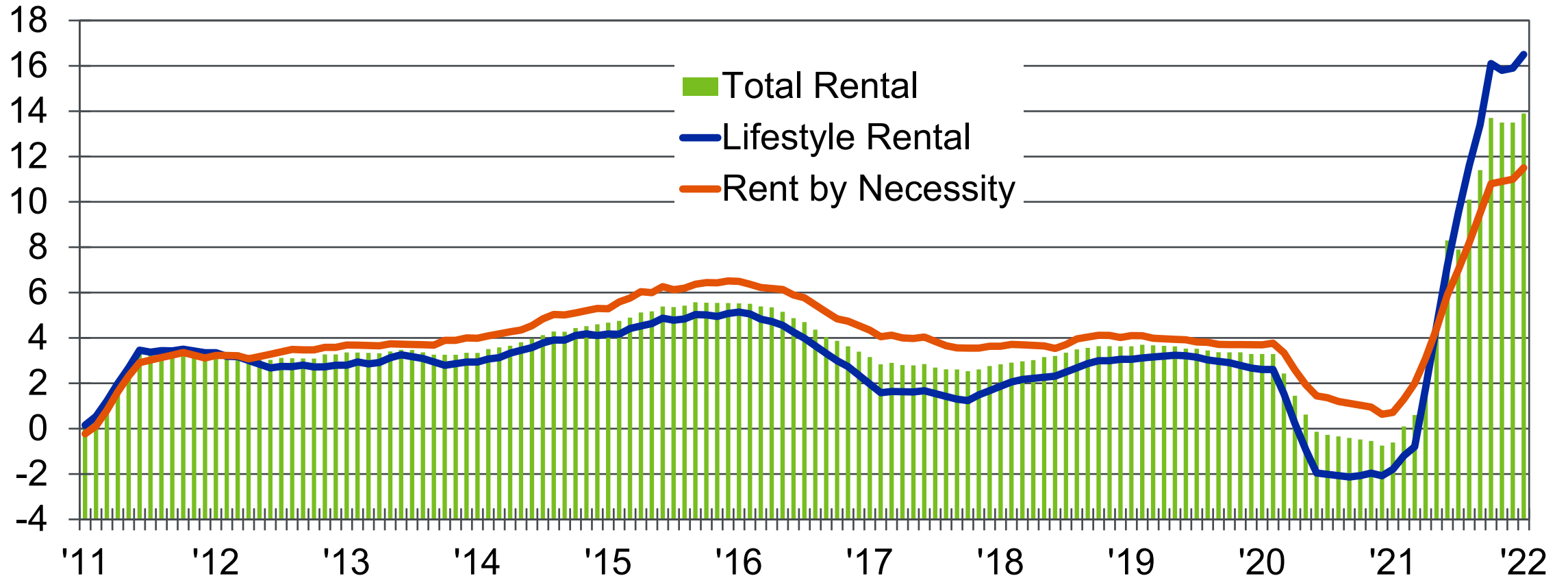
Consumer price inflation, annualized % change



Sources: BLS, Moody's Analytics

# ...And Will Get Bumpier...

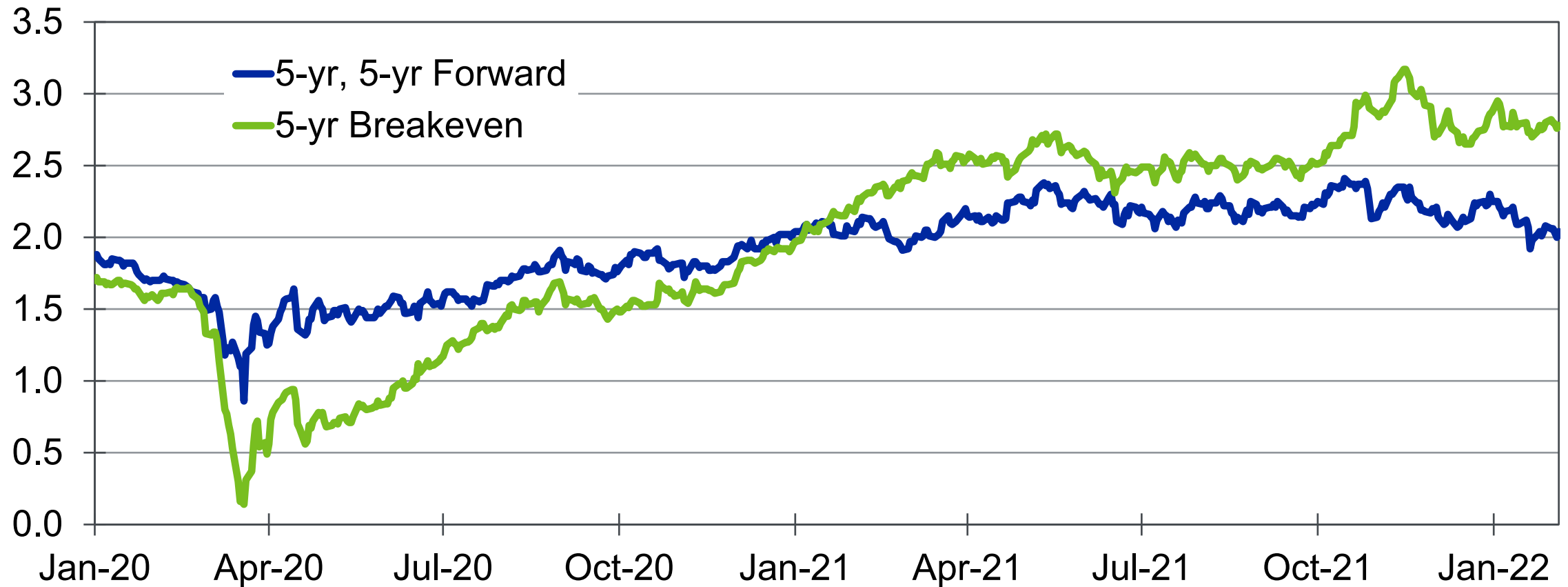
Rent growth, % change year ago



Sources: Yardi, Moody's Analytics

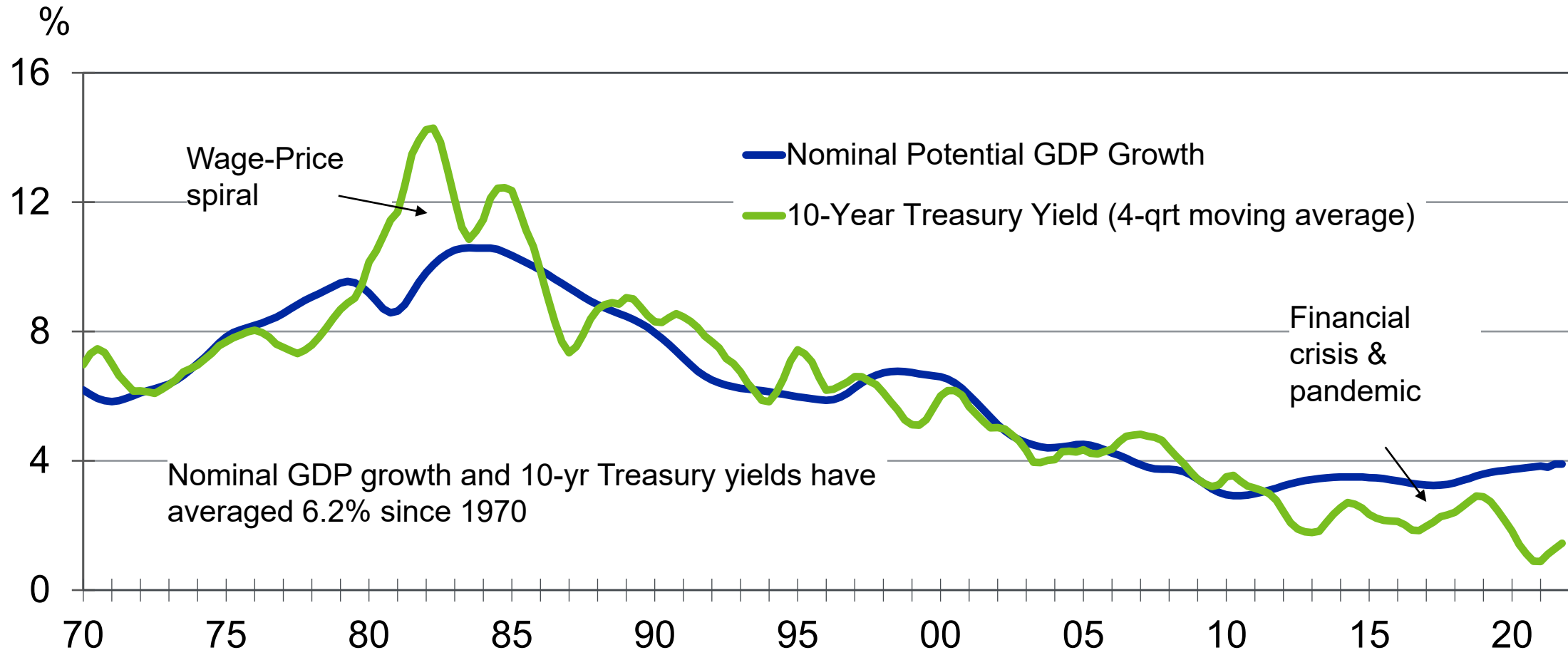
# ...So Watch Inflation Expectations

Global investors are sanguine about the outlook for inflation, %



Sources: BEA, Moody's Analytics

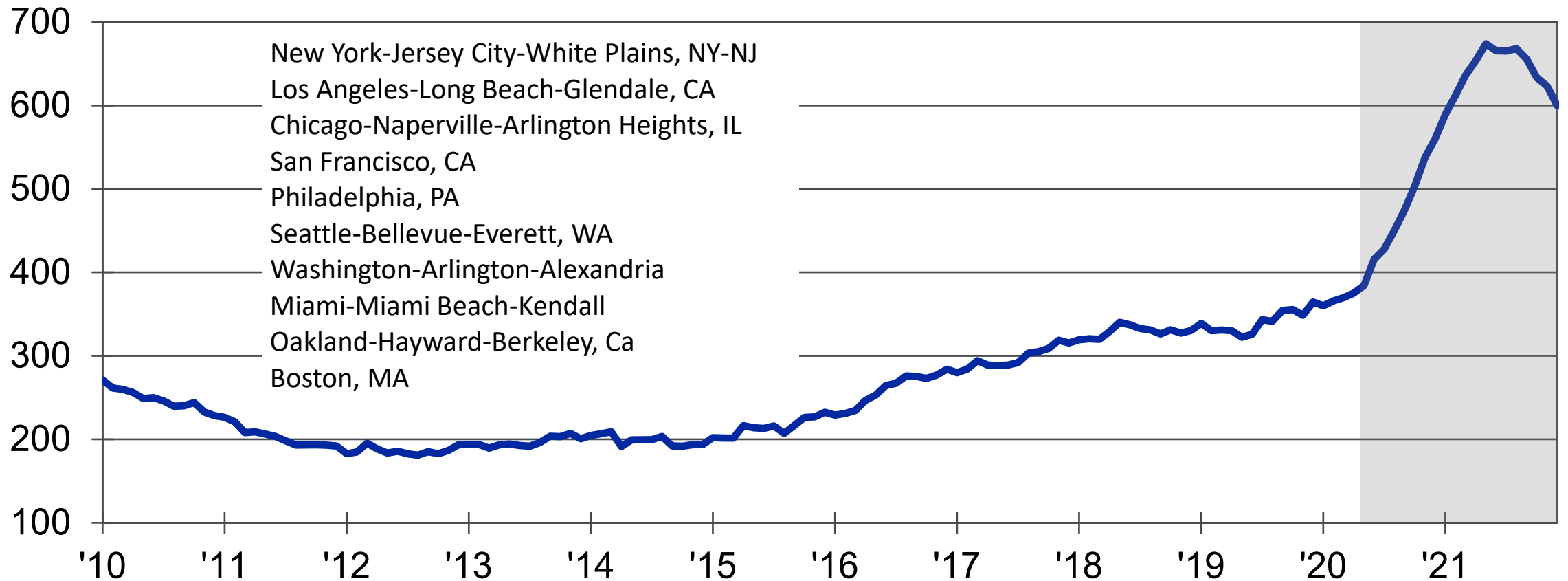
# Long-Term Rates in the Longer-Run



Sources: BLS, Moody's Analytics

# Remote Work Surges During the Pandemic...

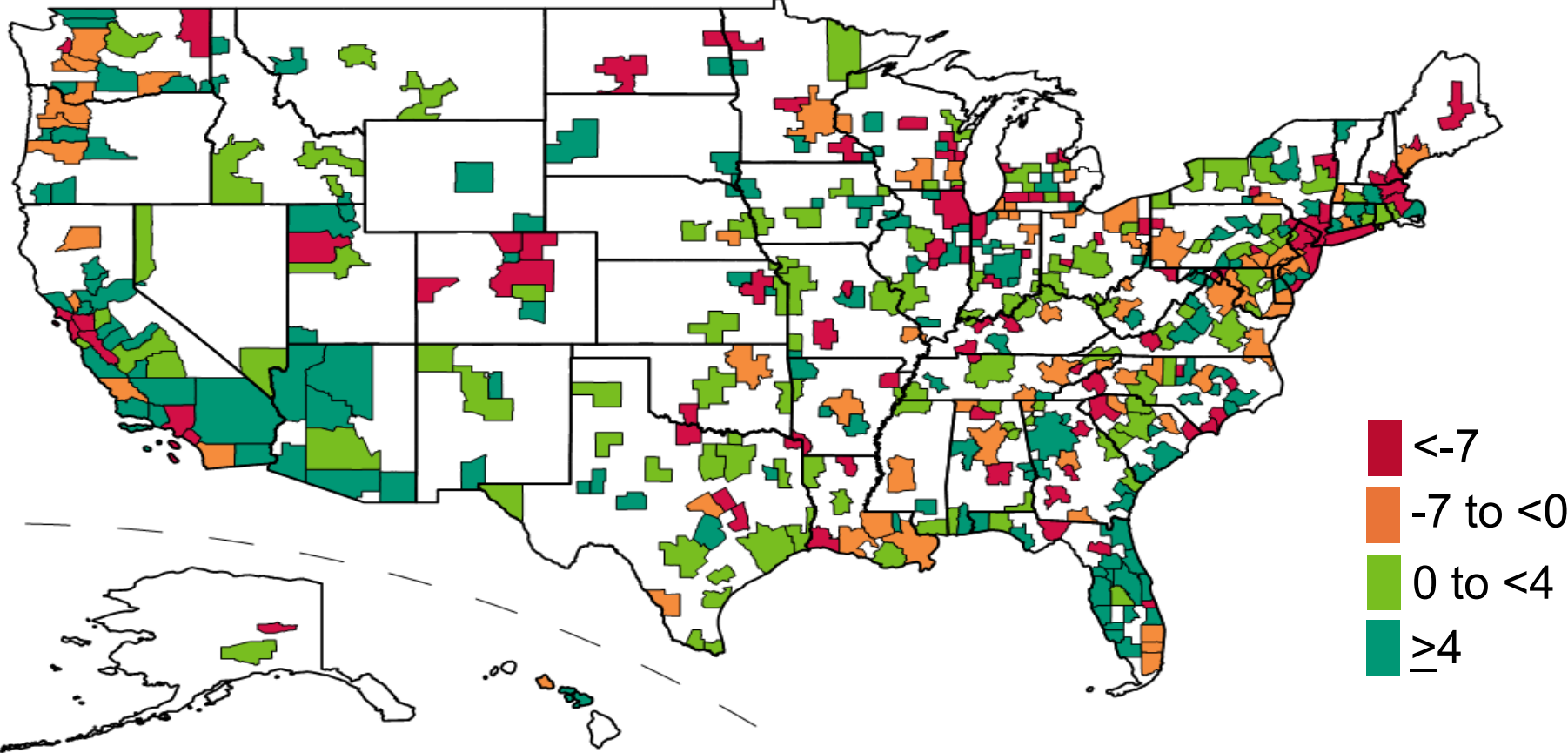
Net out-migration from urban cores, thousands, 12-month moving sum



Sources: Equifax, Moody's Analytics

# ...As Workers Leave Large, Expensive Cities

Urban migration per 1,000 residents during pandemic, annualized

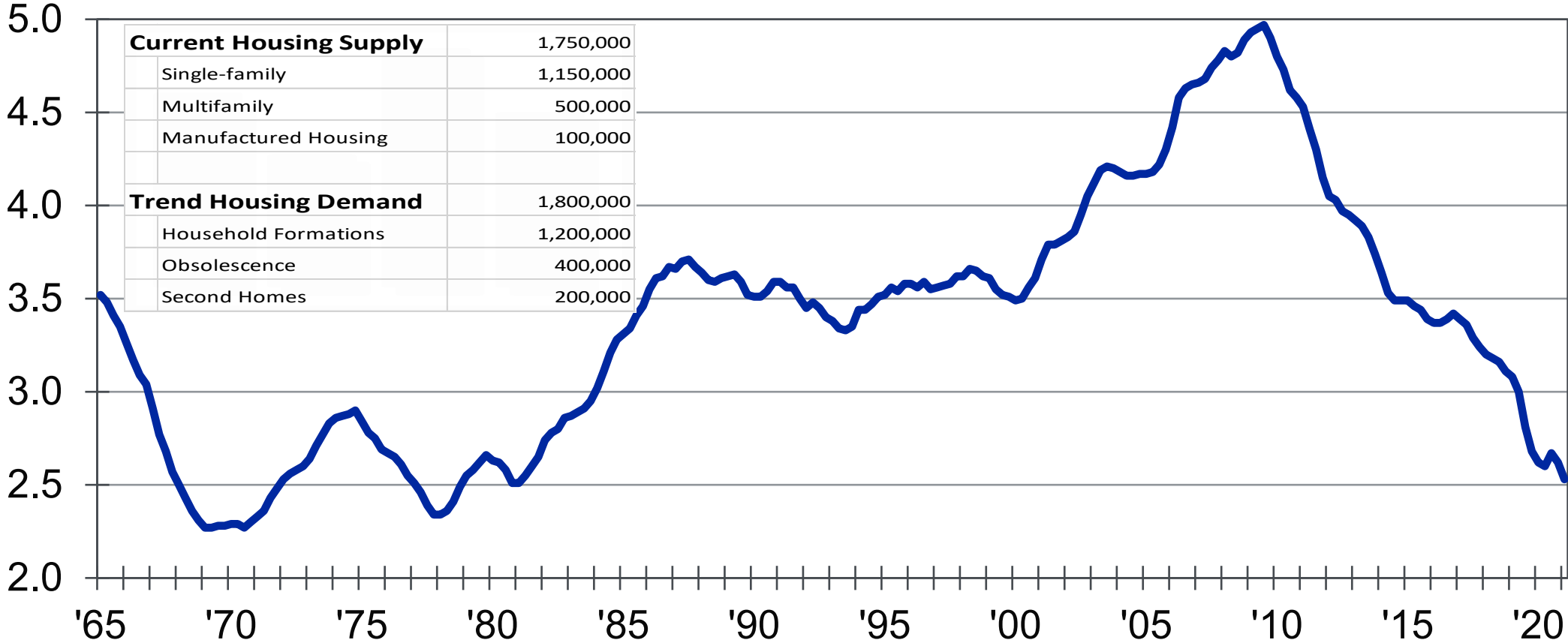


Sources: Equifax, Moody's Analytics



# The Housing Supply Shortage Intensifies...

Vacancy rate for homes for sale and rent, 4-qrt moving average, %



Sources: Census Bureau, Moody's Analytics

# ...Especially In These Markets

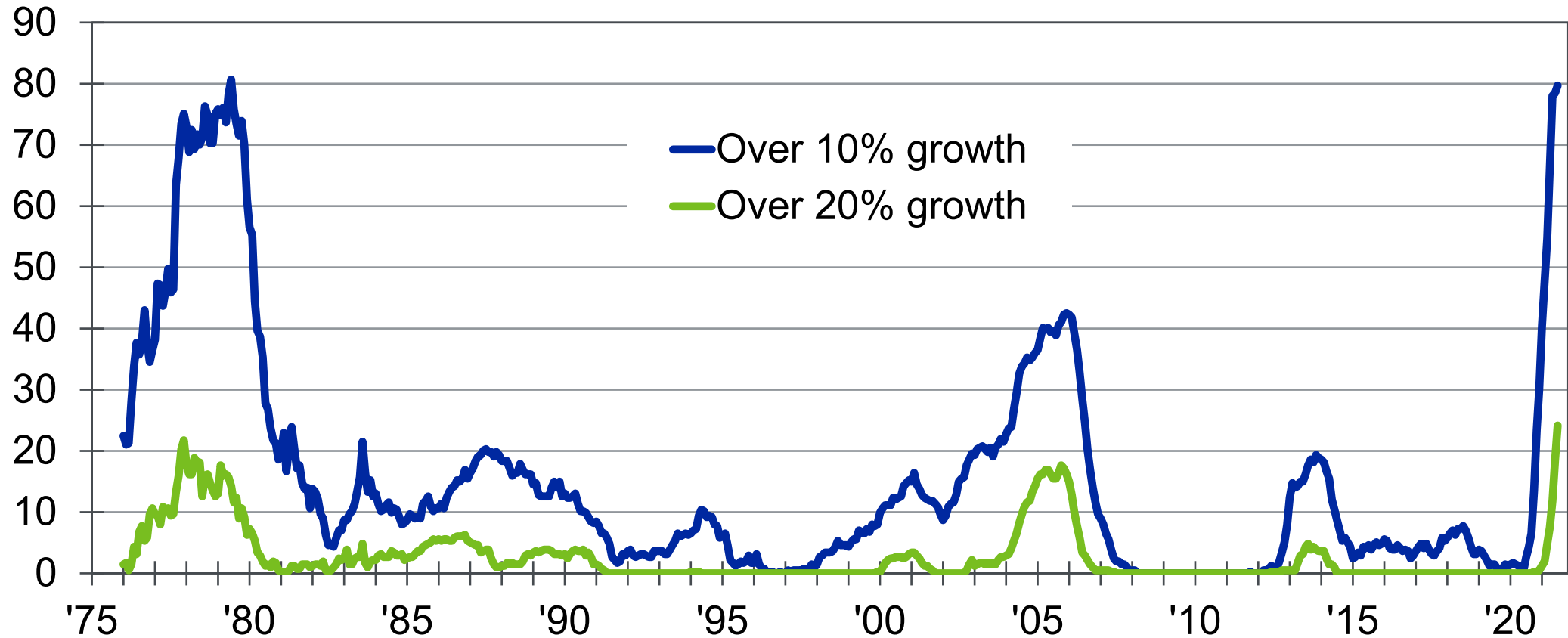
2021q3

Rank	Metro area	Households	Housing stock					Vacancy rate, %	Equil. vacancy rate (v*), %	Equil. supply	Demand	Surplus/deficit	Surplus, % of stock
			Total	Occupied	Owner occupied	Renter occupied	Vacant						
<b>Top 10 deficit</b>													
1	Dallas	2,795	2,928	2,789	1,777	1,011	140	5	8	2,694	2,795	-101	-3.4
2	Houston	2,519	2,698	2,513	1,613	900	185	7	10	2,441	2,519	-78	-2.9
3	Riverside CA	1,443	1,585	1,441	1,011	430	144	9	13	1,375	1,443	-68	-4.3
4	Washington DC	2,370	2,439	2,367	1,577	789	72	3	5	2,307	2,370	-63	-2.6
5	San Antonio TX	938	960	936	650	286	23	2	8	886	938	-52	-5.4
6	Phoenix	1,784	1,977	1,779	1,258	520	199	10	12	1,742	1,784	-42	-2.1
7	Boston	1,887	1,956	1,885	1,201	683	71	4	5	1,850	1,887	-37	-1.9
8	Austin TX	854	892	851	532	319	41	5	8	819	854	-35	-3.9
9	Tampa FL	1,306	1,467	1,304	946	358	163	11	13	1,275	1,306	-31	-2.1
10	Miami	2,291	2,582	2,286	1,546	740	296	11	12	2,260	2,291	-31	-1.2
<b>Top 10 surplus</b>													
10	Toledo OH	247	280	246	161	86	33	12	8	258	247	11	4.0
9	Los Angeles	4,435	4,656	4,430	2,284	2,147	226	5	4	4,448	4,435	13	0.3
8	Cincinnati	867	950	866	579	287	84	9	7	880	867	13	1.4
7	Birmingham AL	464	529	463	328	135	66	12	10	478	464	14	2.6
6	Youngstown OH	225	262	225	159	67	37	14	8	241	225	16	6.1
5	Memphis TN	512	586	512	335	177	75	13	9	534	512	21	3.6
4	New York	7,506	8,028	7,501	3,996	3,505	527	7	6	7,529	7,506	23	0.3
3	Pittsburgh	1,022	1,132	1,021	714	307	110	10	7	1,047	1,022	25	2.2
2	Cleveland	860	975	860	573	287	115	12	8	902	860	42	4.3
1	Detroit	1,731	1,938	1,730	1,254	476	208	11	7	1,797	1,731	66	3.4

Sources: Census, Moody's Analytics

# House Price Growth Will Come Back To Earth...

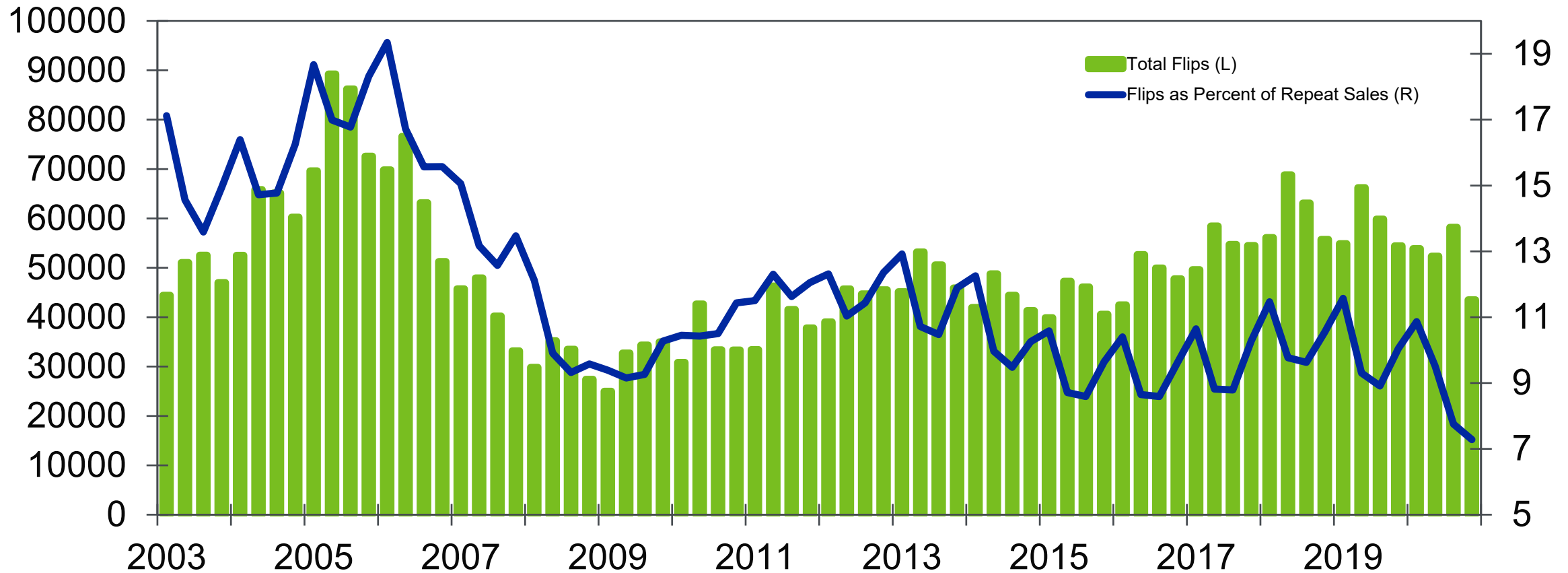
% of metro areas with house price growth of...



Sources: CoreLogic, Moody's Analytics

# ...Gracefully...

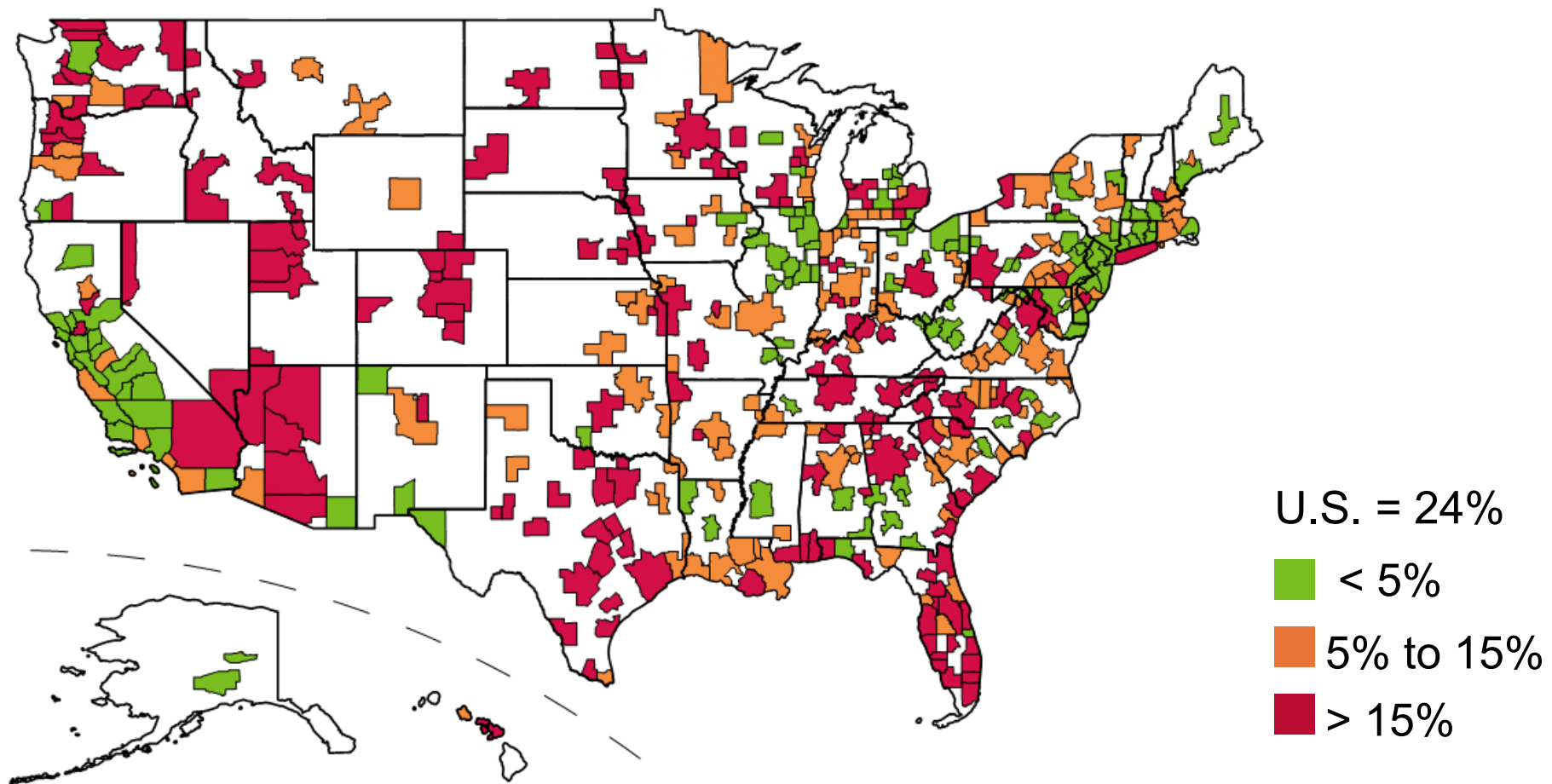
Total number of Home Flips (L), % of total sales (R)



Sources: Moody's Analytics Calculated

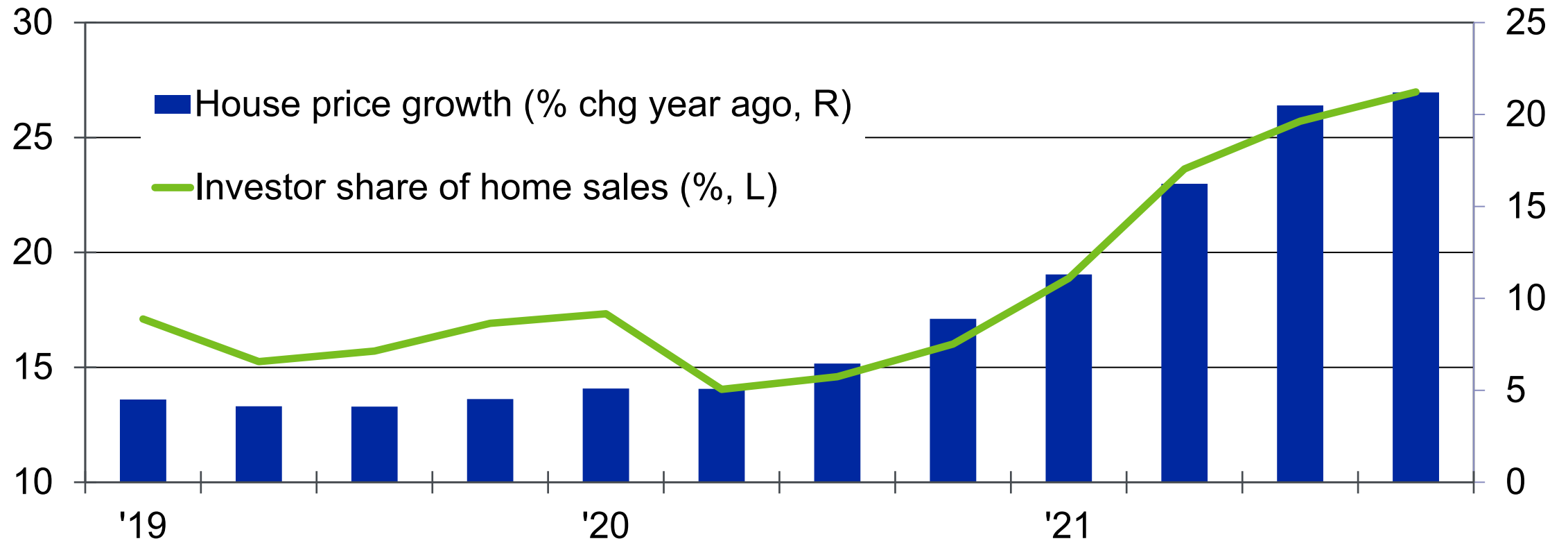
# ...But House Price Valuations Are Stretched...

Home price valuation, % over-undervalued, 2021q3



Sources: FHFA, Freddie Mac, Fannie Mae Moody's Analytics

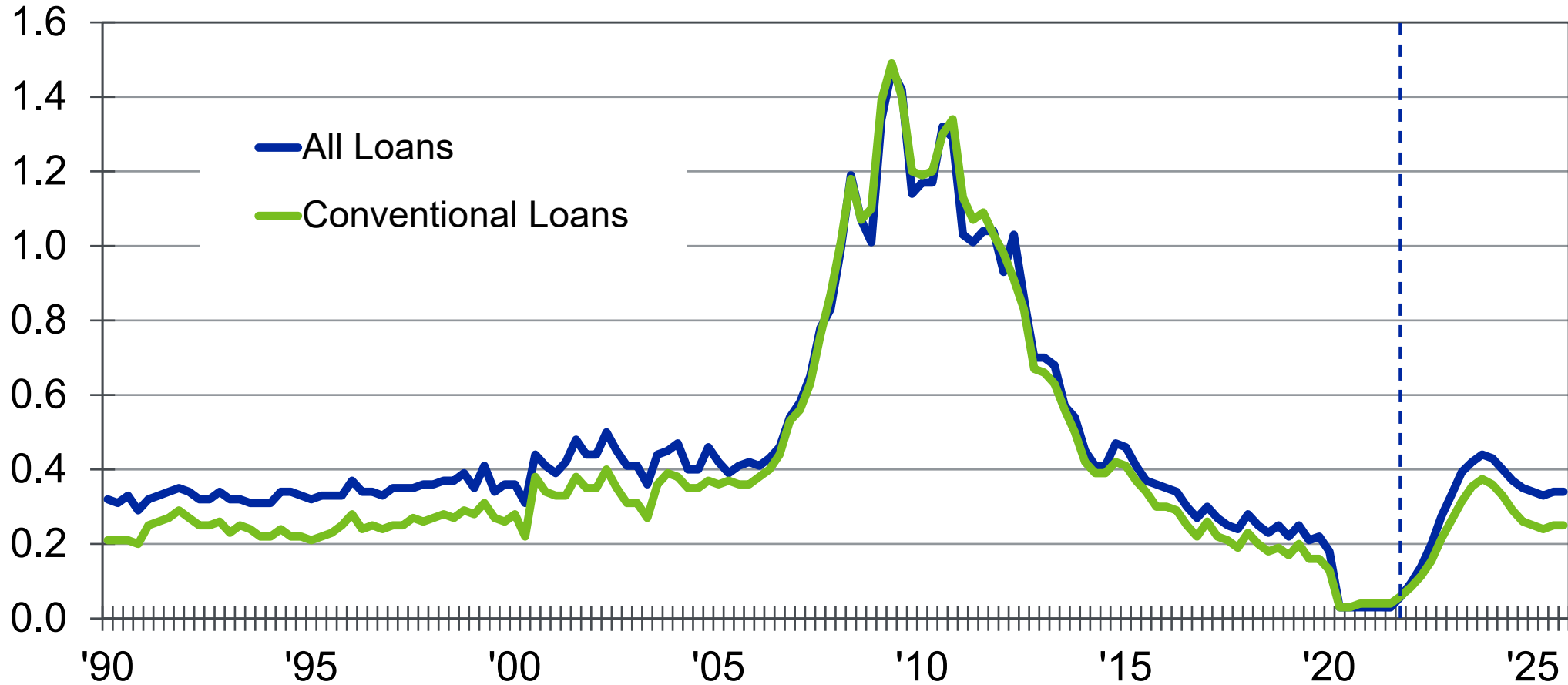
# ...And Investors Flood the Housing Market



Sources: CoreLogic, Moody's Analytics

# Resi Mortgage Credit Quality Will Normalize...

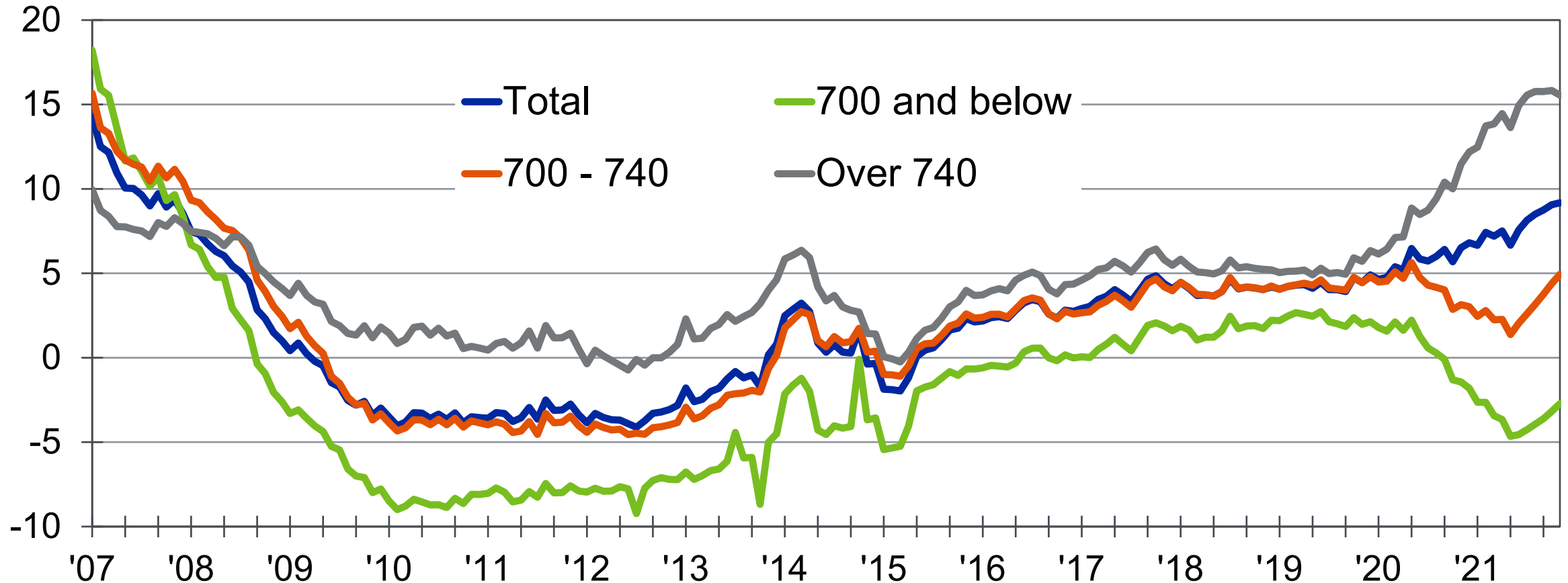
Foreclosure started rate, %



Sources: MBA, Moody's Analytics

# ...As Underwriting Has Been Good...

First mortgage debt outstanding, % chg yr ago

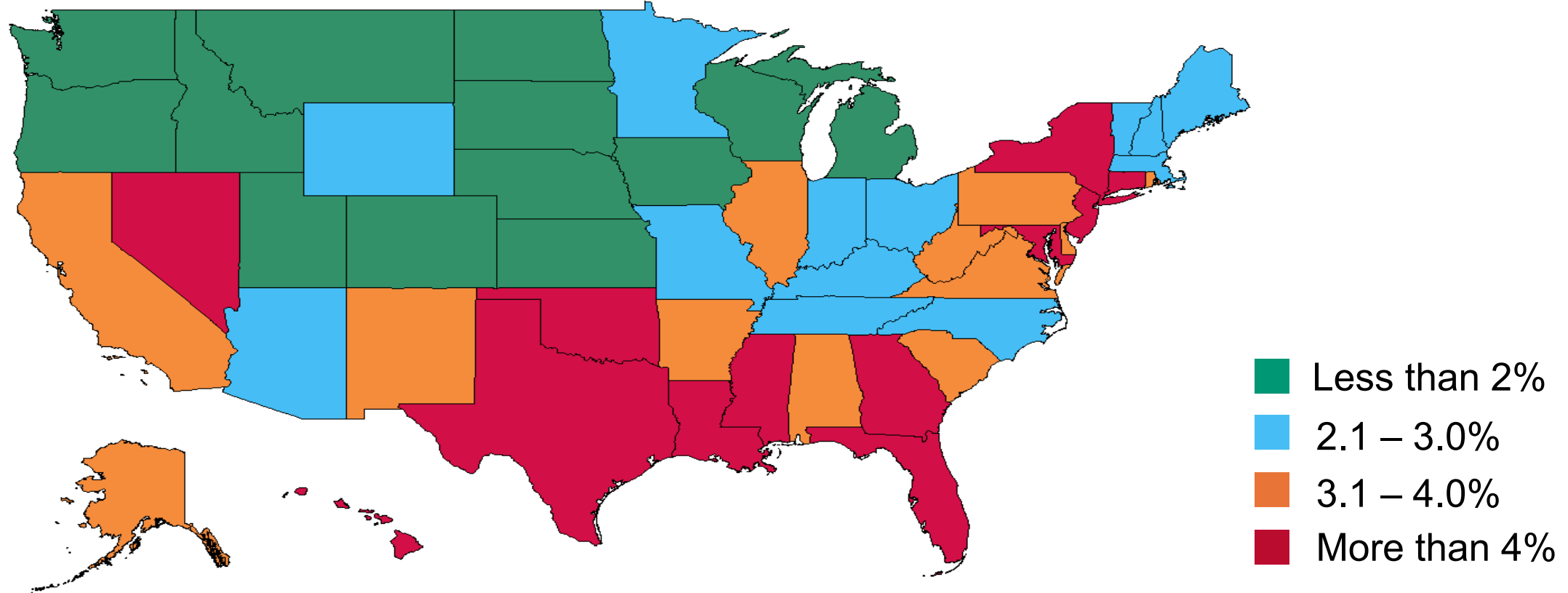


Sources: Equifax, Moody's Analytics



# ...But Will Be More Challenging in Some Places

First mortgage loan accommodations, % of loan balances, 2021q4



Sources: Equifax, Moody's Analytics

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