



An APS Portfolio Strategy call

Housing: Present, future and its impact on markets

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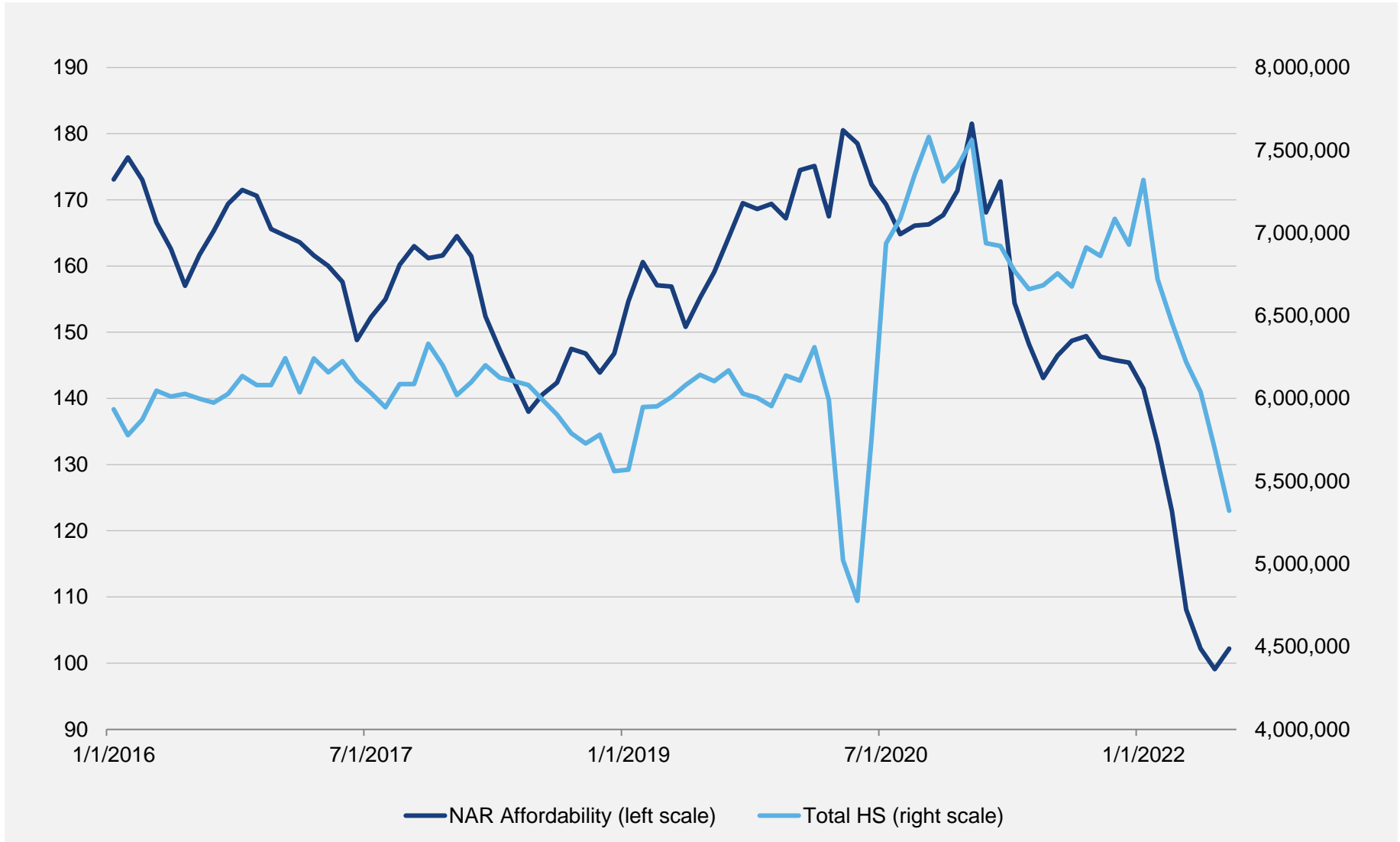


Economy: A bearish cyclical and bullish secular view of housing

Stephen Stanley

Chief Economist, Amherst Pierpont Securities

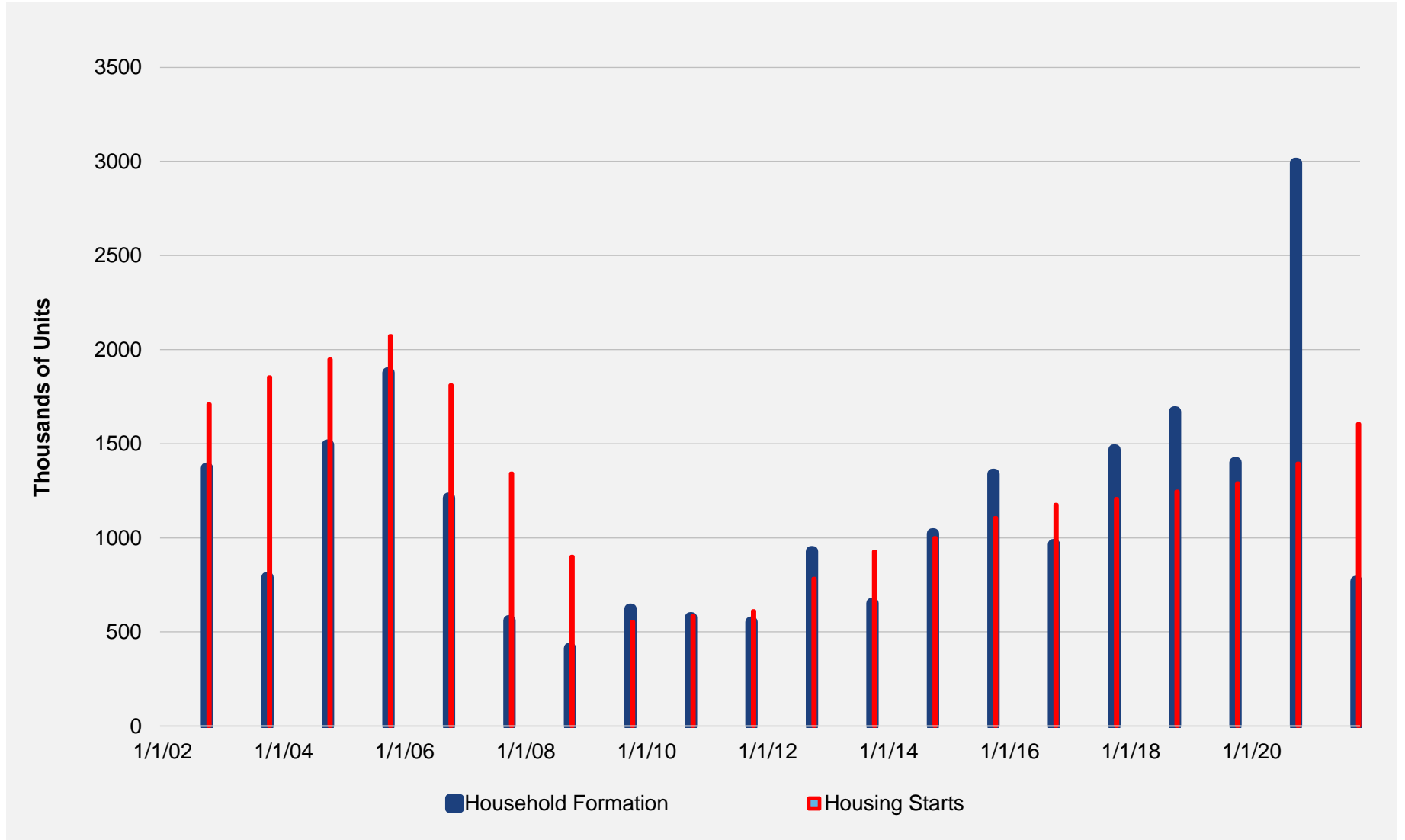
HOME SALES HAVE FALLEN WITH AFFORDABILITY



Note: The NAR affordability index is based on the median level of personal income weighed against the cost of financing a home purchase, which mainly reflects home prices and mortgage rates.

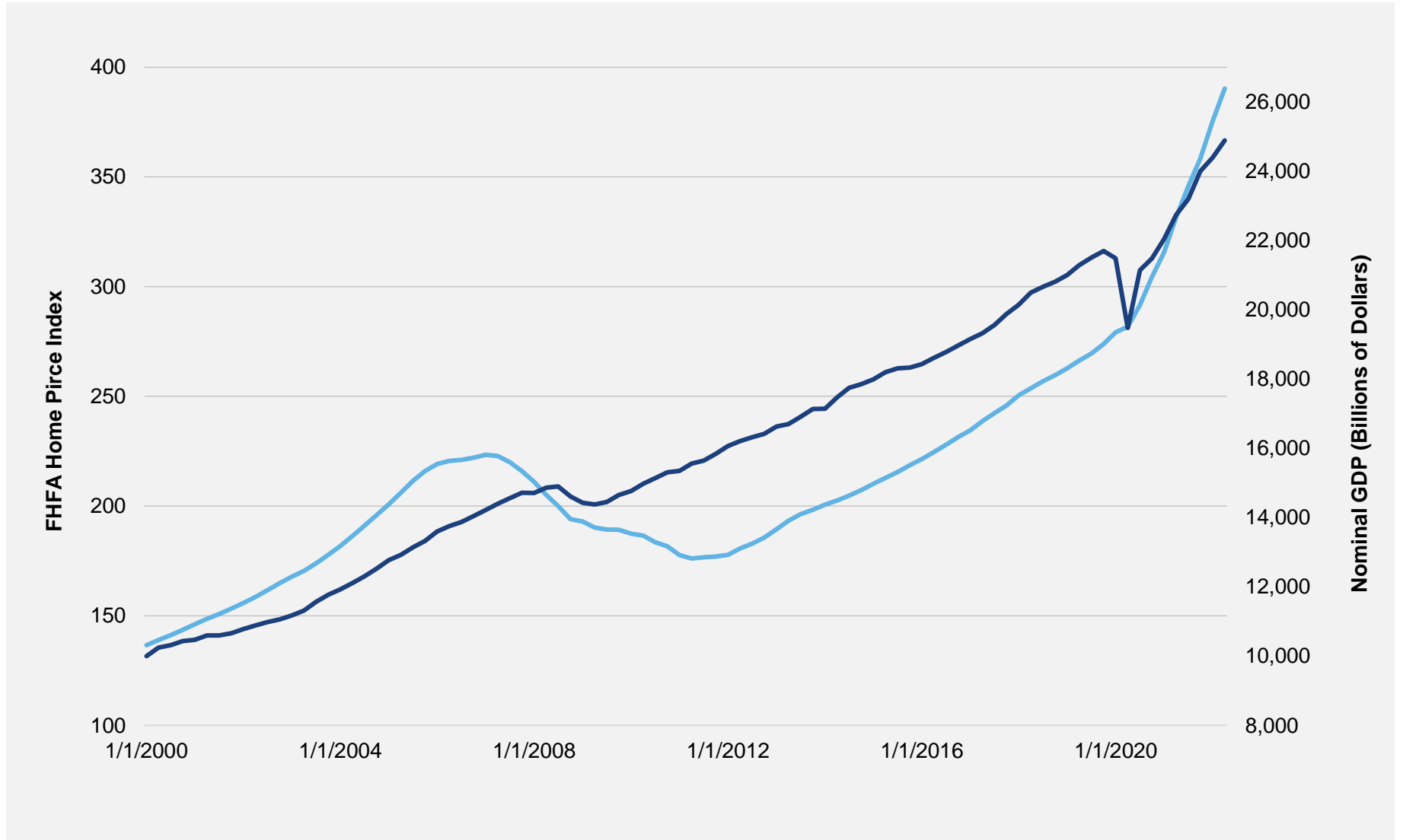
Source: NAR, Census Bureau.

ANNUAL HOUSEHOLD FORMATION HAS OUTSTRIPPED HOUSING STARTS



Source: Census Bureau.

HOME PRICES TRACK NOMINAL GDP IN THE LONG RUN



Source: FHFA, BEA.



Causes and solutions of a chronic housing shortfall

Laurie Goodman

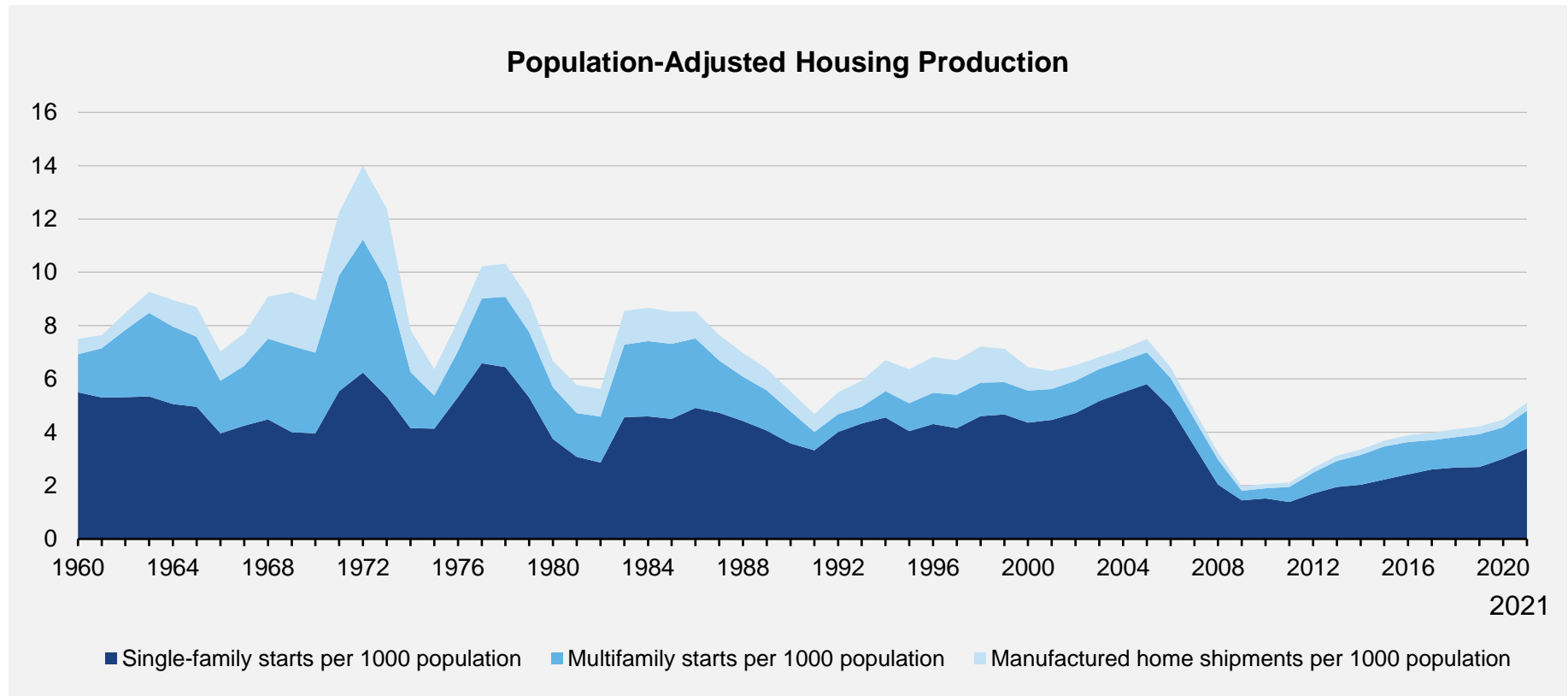
Housing and Mortgage Finance Analyst, Independent

OUTLINE: CAUSES AND SOLUTIONS OF A CHRONIC HOUSING SHORTFALL

- Supply is well short of demand.
- While barriers in the multifamily market have received a lot of attention from policy makers single family barriers have not.
- Drivers of the supply shortage: restrictive zoning, restrictive building codes, high construction costs, including labor and materials, and financing constraints.
- Single-family affordable options: manufactured housing, increased ADU production, home preservation, modular/panelized construction. Each of these could increase substantially if barriers to doing so were mitigated, or partly mitigated.
- While there are many obstacles to increasing the supply in these sectors, financing impediments—which can be resolved at the federal level—play a major role.
- Slowing of household growth could eventually rescue us, but it will take decades.

HOUSING SUPPLY SHORTAGE

- Freddie Mac, 2021: Shortage of 3.8 million units; NAR: 5.5 million fewer units built from 2001-2020 versus 3 prior decade per annum average
- Stephen Stanley: Shortfall of at least 1 million units; Parrott and Zandi: 1.7 million units short



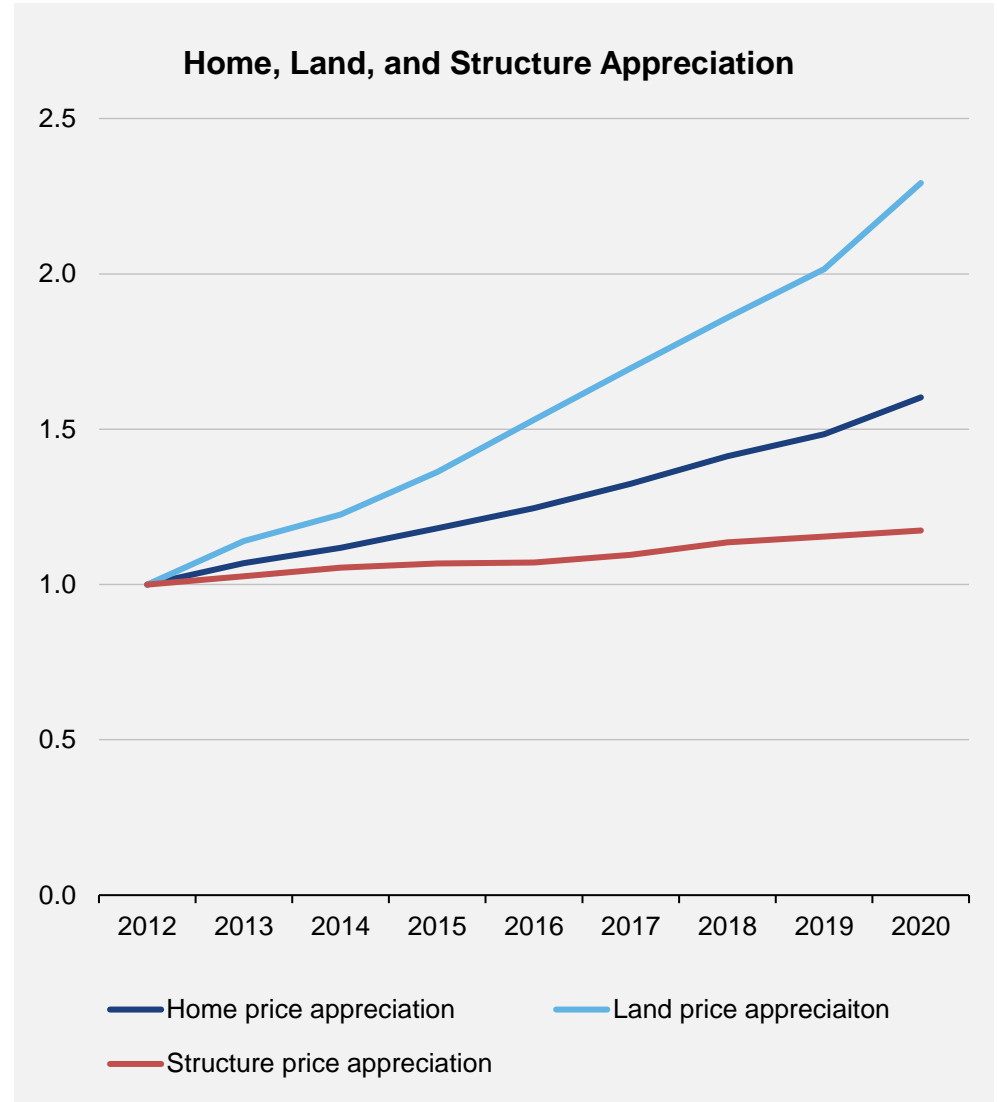
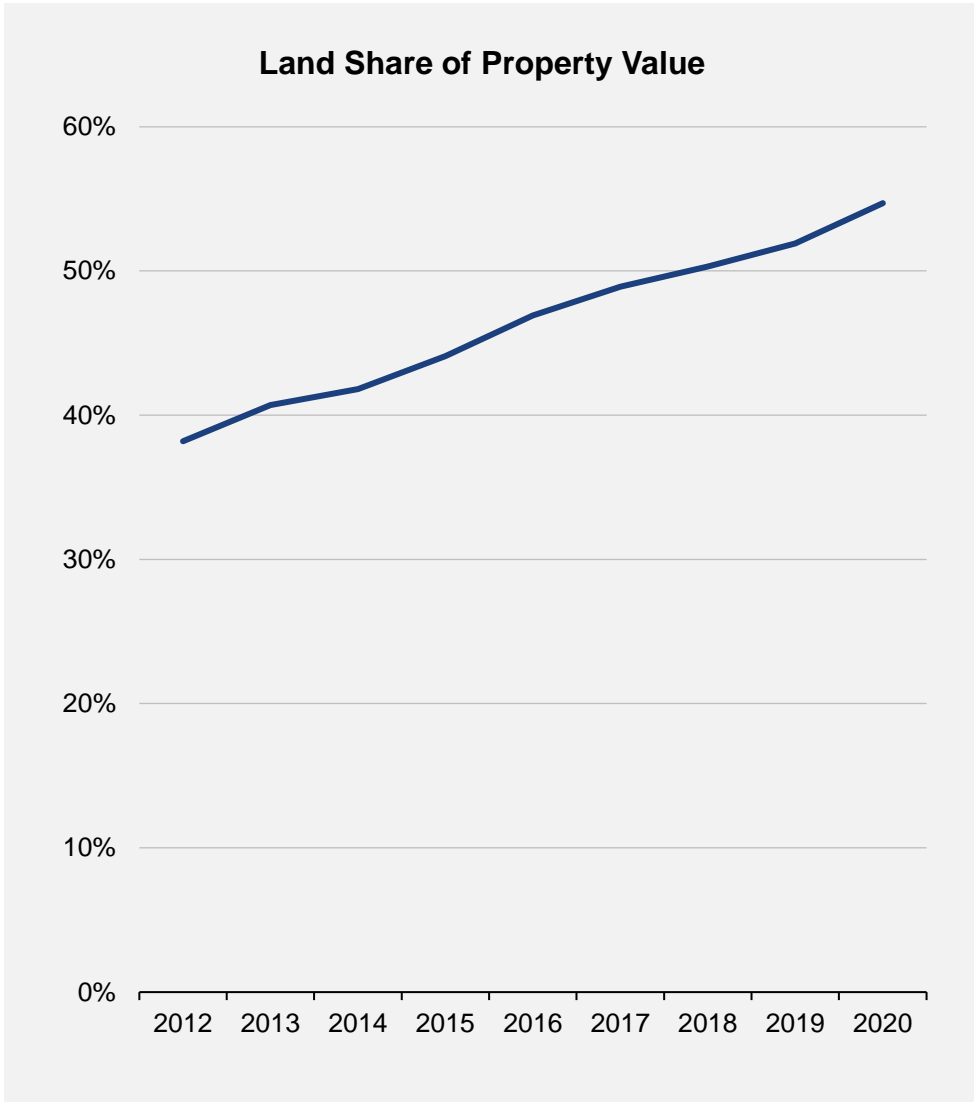
Source: Urban Institute calculations of US Census Bureau data.

US HOUSING STOCK DISTRIBUTION, BY YEAR BUILT: MEDIAN=1978

	Number of units	Share of housing stock
2010 or later	10,008,104	7.2%
2000 to 2009	18,434,989	13.2%
1980 to 1999	37,725,172	27.0%
1960 to 1979	35,536,349	25.4%
1940 to 1959	20,762,454	14.9%
1939 or earlier	17,219,141	12.3%
Total	139,686,209	100.0%

Source: 2019 American Community Survey.

LAND PRICES ARE AN INCREASING SHARE OF TOTAL COSTS



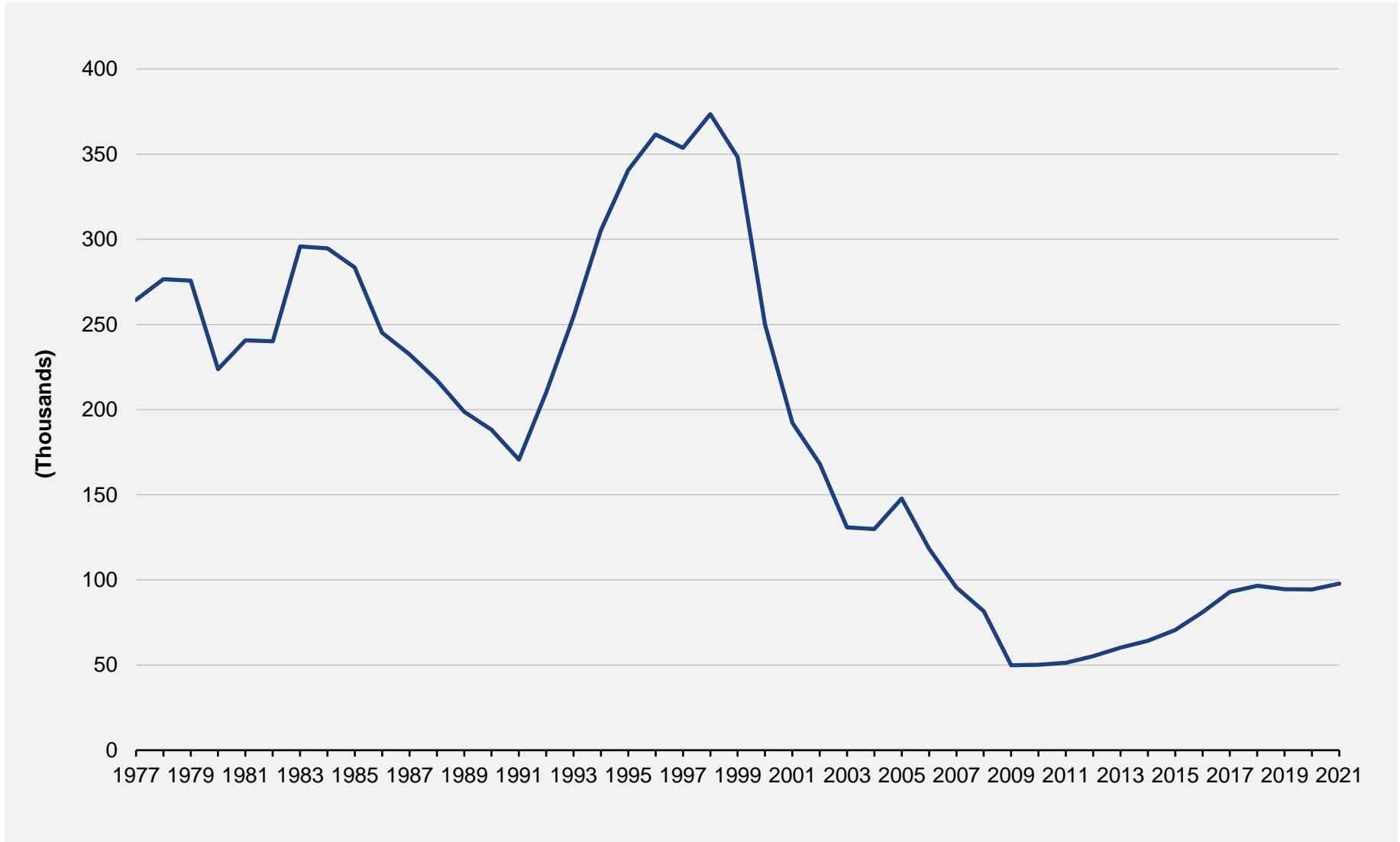
Source: American Enterprise Institute (AEI) and Urban Institute calculations.

SALES CHARACTERISTICS BY CONSTRUCTION METHOD, 2021

	Manufactured housing	Site-built
Average sale price, excluding land	\$108,100	\$365,904
Average square footage	1,497 square feet	2,544 square feet
Average price per square foot	\$72	\$144
Median homebuyer income	\$53,000	\$86,000
Number of units completed	106,000	1,127,000

Source: US Census Bureau's Survey of Construction and Manufactured Housing Survey, ACS.

ANNUAL SHIPMENTS OF MANUFACTURED HOMES



Source: US Census Bureau and the US Department of Housing and Urban Development.

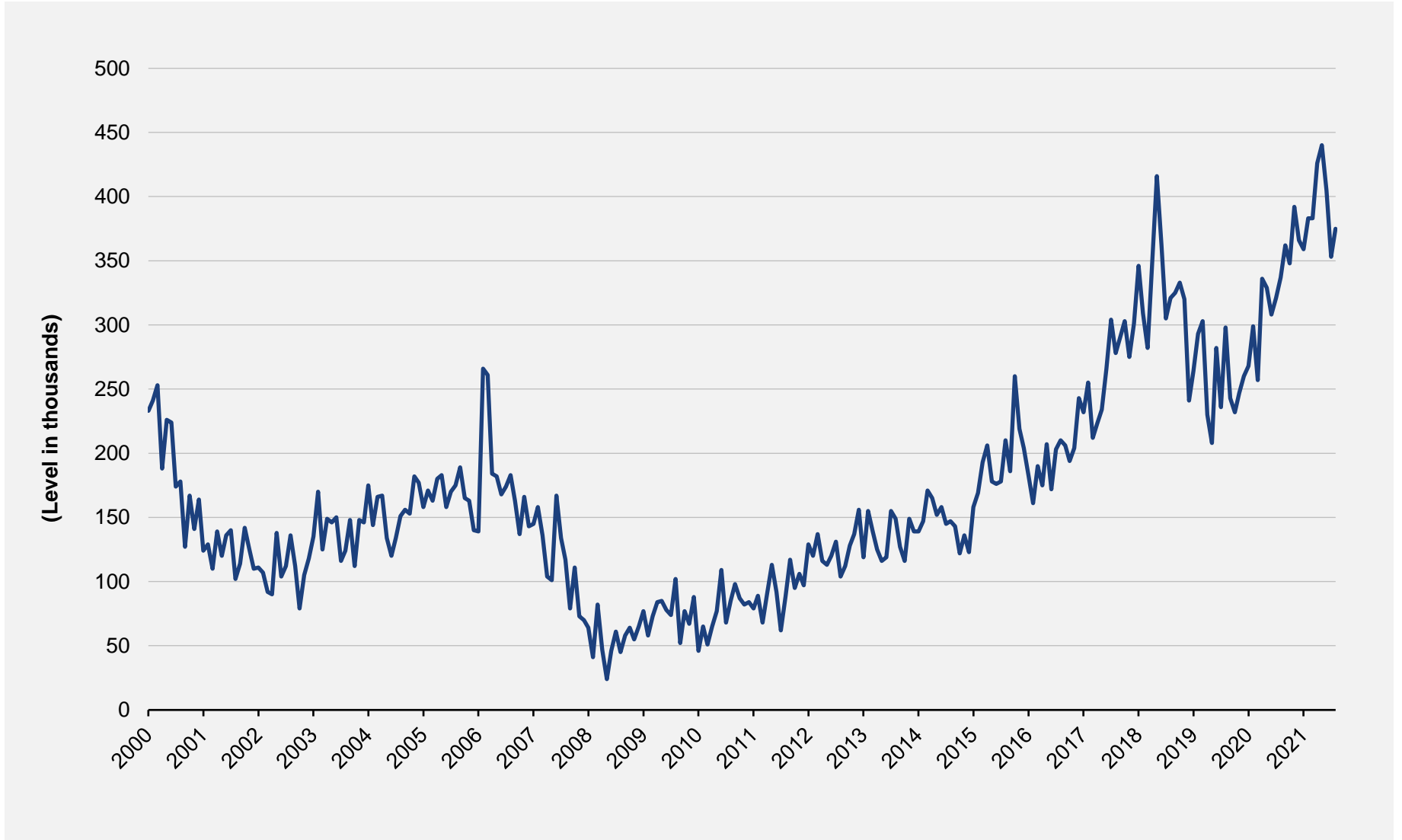
REGULATORY COSTS ARE IMPORTANT; RESTRICTED BUILDING CODES PLAY A BIG PART

A. During Lot Development	Share with the Regulatory Cost	Regulation as a % of Lot Cost		Regulation as a % of House Price	
		Average When Present	Average Across All Lots	Average When Present	Average Across All Lots
Cost of applying for zoning approval	98.1%	6.7%	6.6%	1.7%	1.6%
Hard costs of compliance (fees, required studies, etc.)	100.0%	12.0%	12.0%	3.0%	3.0%
Land dedicated to the govt. or otherwise left unbuilt	94.0%	11.6%	11.0%	2.9%	2.8%
Standards (setbacks, etc.) that go beyond the ordinary	85.4%	10.4%	9.1%	2.6%	2.3%
Complying with OSHA/other labor requirements	58.3%	2.2%	1.8%	0.5%	0.5%
Pure cost of delay (if regulation imposed no other cost)	95.9%	1.5%	1.5%	0.4%	0.4%
All Regulation During Development	100.0%	41.9%	41.9%	10.5%	10.5%

B. During Construction of the Structure	Share with the Regulatory Cost	Regulation as a % of Lot Cost		Regulation as a % of House Price	
		Average When Present	Average Across All Lots	Average When Present	Average Across All Lots
Fees paid by the builder after purchasing the lot	91.1%	5.5%	5.0%	3.4%	3.1%
Changes to building codes over the past 10 years	90.2%	10.8%	9.9%	6.7%	6.1%
Architectural design standards beyond the ordinary	57.5%	7.7%	4.4%	4.8%	2.7%
Complying with OSHA/other labor requirements	63.8%	2.5%	1.8%	1.5%	1.1%
Pure cost of delay (if regulation imposed no other cost)	89.5%	0.4%	0.4%	0.3%	0.2%
All Regulation During Construction of the Structure	98.9%	21.7%	21.5%	13.5%	13.3%
Total Costs of Regulation					23.8%

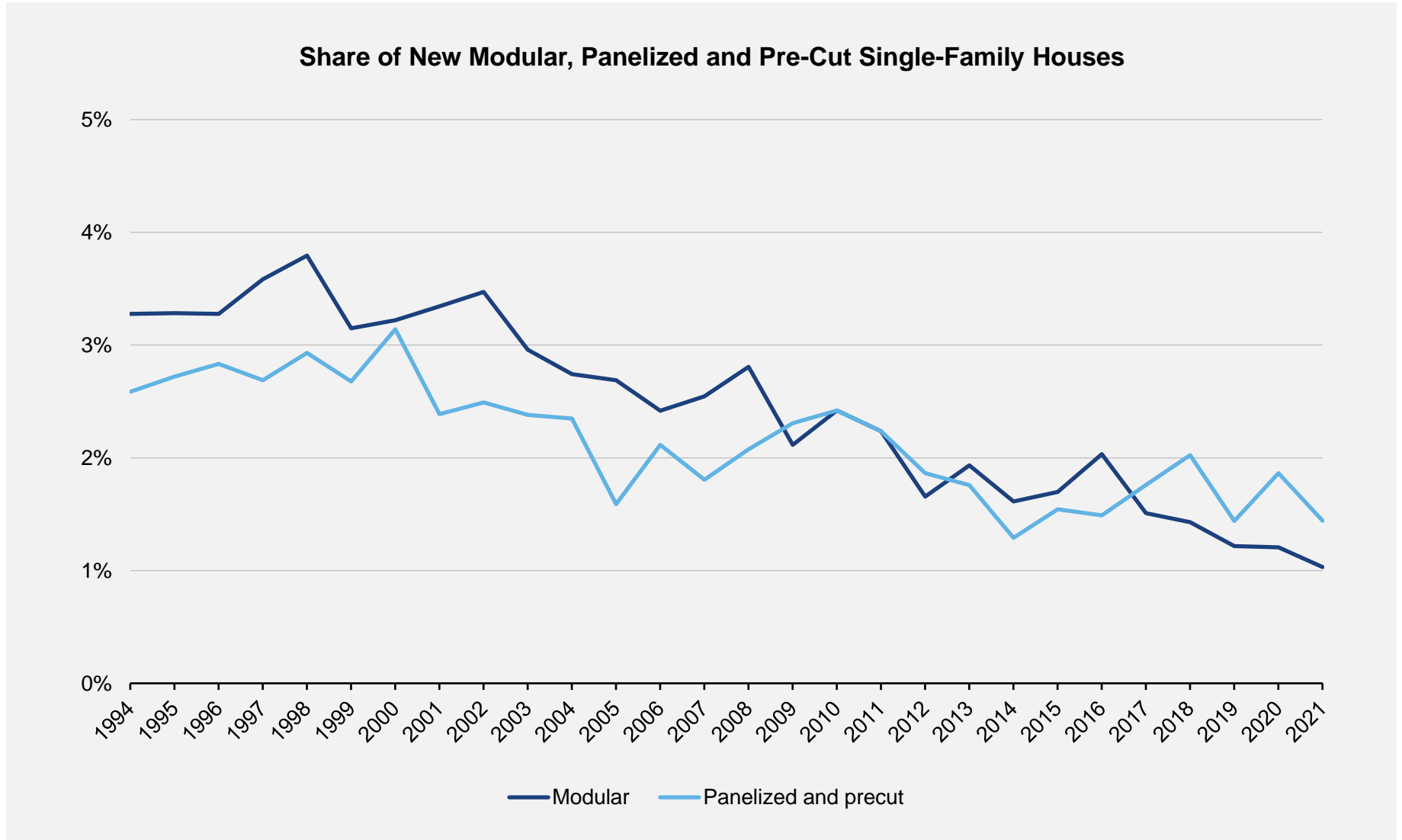
Source: National Association of Home Builders.

CONSTRUCTION JOB OPENINGS ARE NEAR HISTORIC HIGHS



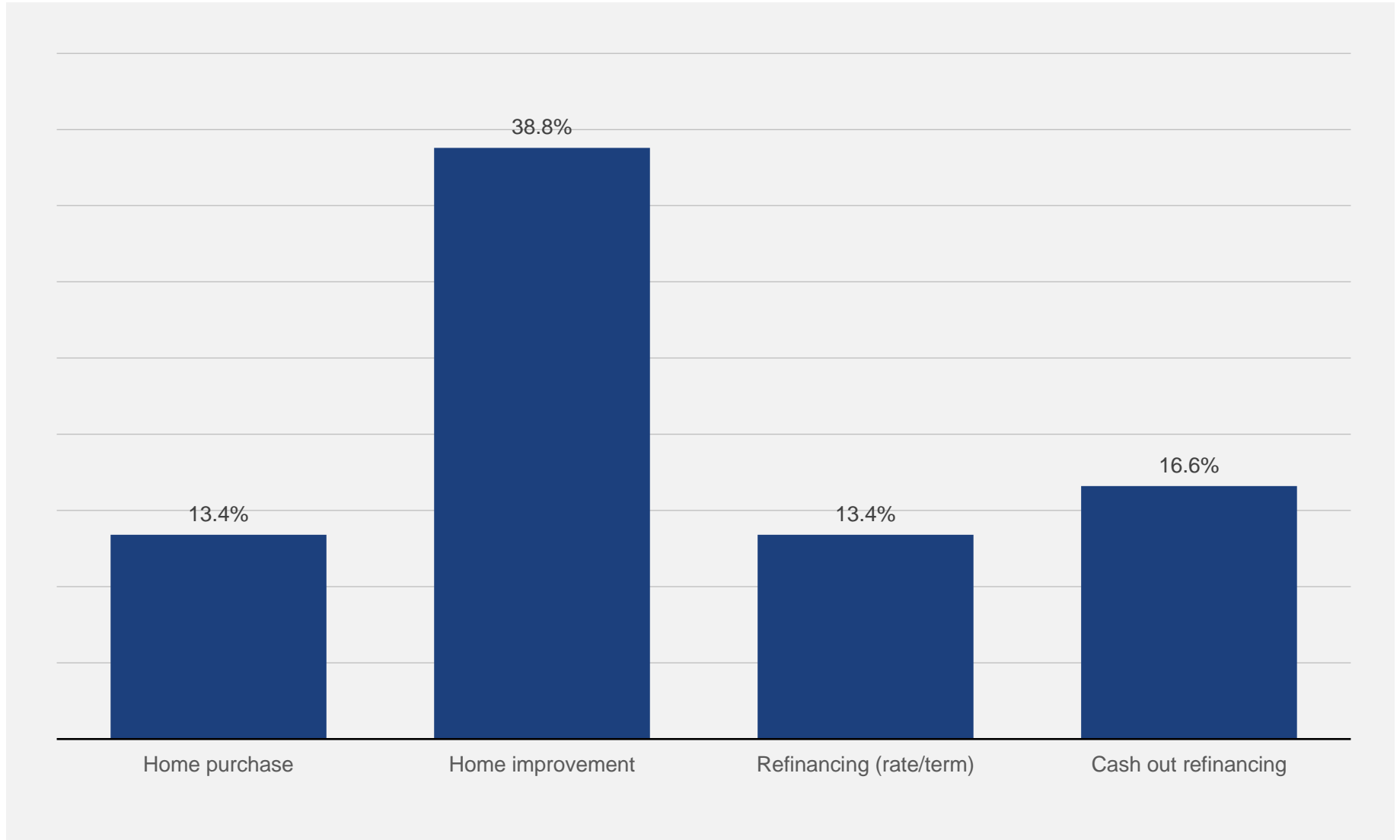
Source: US Bureau of Labor Statistics Job Openings and Labor Turnover Survey.

THE USE OF MODULAR AND PANELIZED HOUSING IS VERY LOW



Source: Survey of Construction (SOC).

DENIAL RATES ON RENOVATION FINANCING ARE HIGH

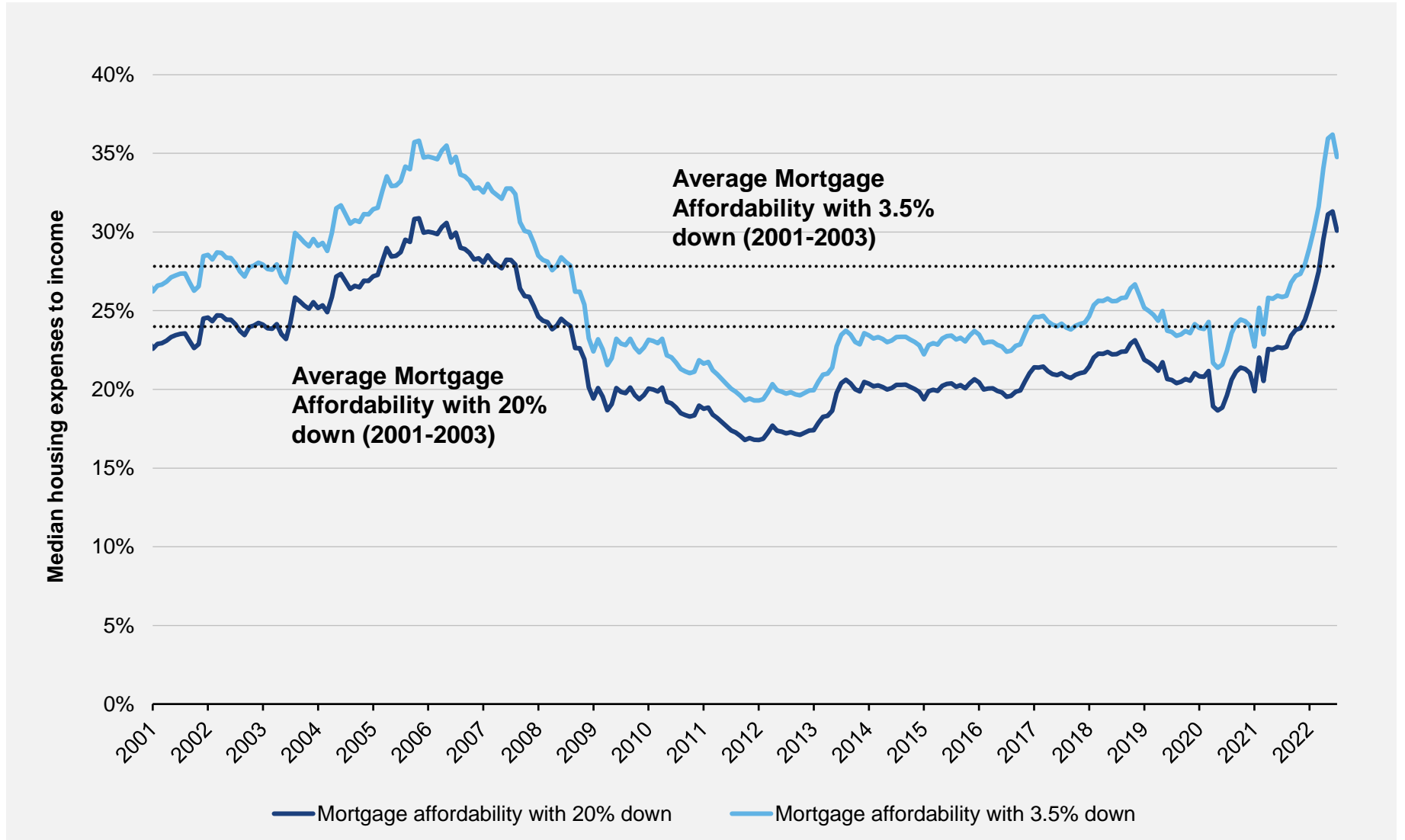


Source: Urban Institute Calculations from 2020 Home Mortgage Disclosure Act Data.

FINANCING CONSTRAINTS

- AD&C (Acquisition, Development and Construction) lending is very tight. This is especially detrimental to smaller builders with no financing alternatives.
- There is effectively no Federal lending for chattel (personal property) loans. The FHA Title 1 program should be improved; these loans should be deliverable into Ginnie II securities on a de minimus basis
- ADU construction and property preservation relies on renovation financing, which is very cumbersome and has a high denial rate. While fixes are possible, a simplified “preferred vendor” system would make more sense.
- ADU financing generally does not take into account the rental income an ADU will generate.

NATIONAL MORTGAGE AFFORDABILITY OVER TIME



CONCLUSION: WE NEED TO FOCUS ON SUPPLY NOW

- Stephen Stanley has pointed out that an acute housing supply shortage and the recent surge in demand has increased prices. The housing supply shortage is particularly acute for affordable supply.
- Population growth is slowing. We added roughly 8.5 million households per decade from 2010 to 2020; if household size stays constant, census population estimates would suggest 8.1 million households from 2020 to 2030 and 6.6 million new households from 2030 to 2040. It will take us decades to grow our way out of the supply shortage.
- There are opportunities to builders and lenders to step in and solve the #1 housing issue, lack of supply.



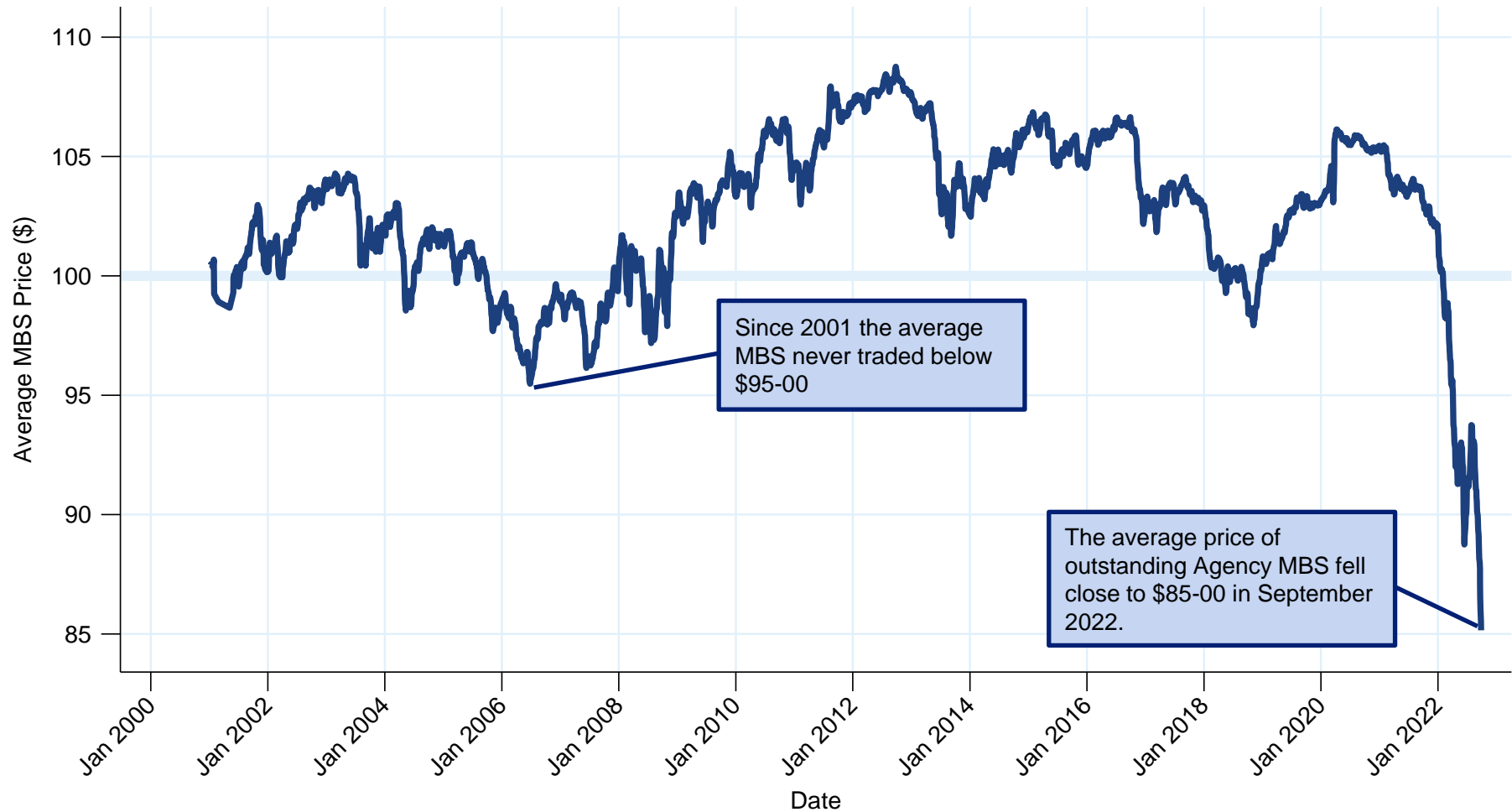
An MBS market leveraged on housing

Brian Landy

Senior Strategist, Amherst Pierpont Securities

THE AVERAGE PRICE OF AN AGENCY POOL FELL CLOSE TO \$85-00 IN SEPTEMBER

The average agency MBS has typically traded above par



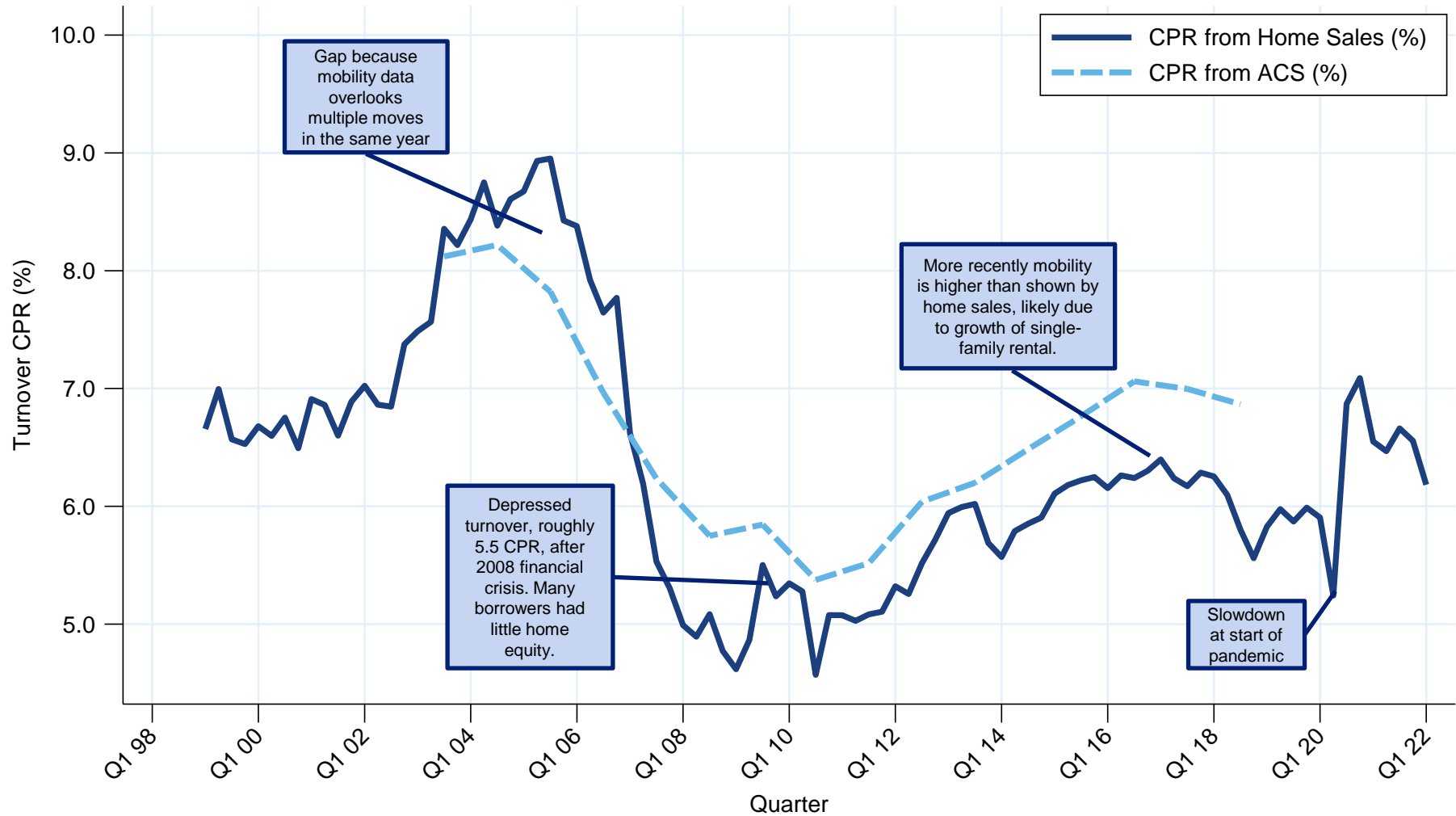
Since 2001 the average MBS never traded below \$95-00

The average price of outstanding Agency MBS fell close to \$85-00 in September 2022.

Source: Fannie Mae, Freddie Mac, Ginnie Mae, Amherst Pierpont.

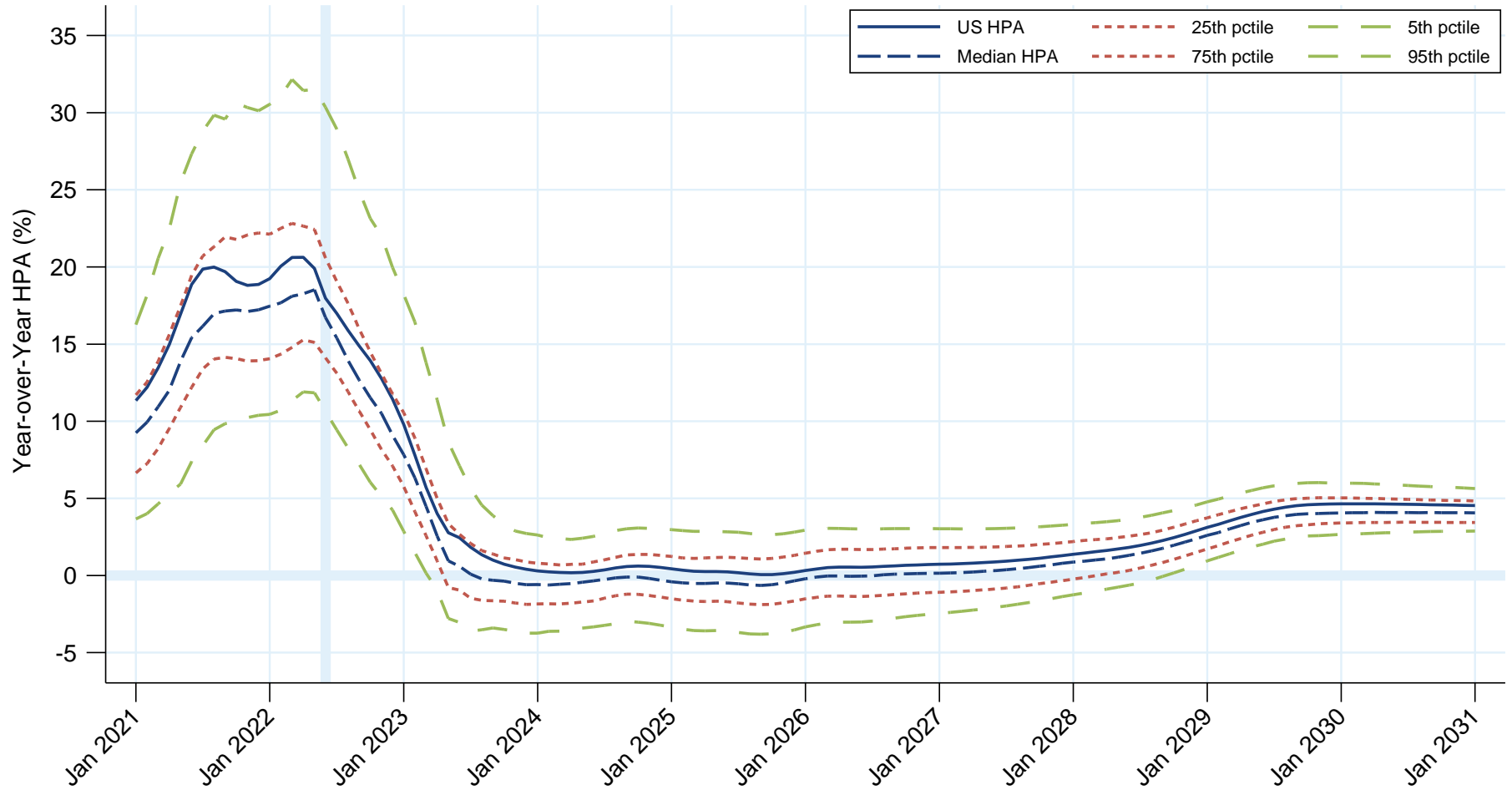
HOME SALES AND MOBILITY DATA SUGGEST TURNOVER IS TYPICALLY 7.0 CPR

Typical turnover is roughly 7.0 CPR



Housing turnover speed estimated using existing home sales and housing stock.
 Source: US Census Bureau American Community Survey, NAR, Amherst Pierpont.
 ACS Mobility data presented as of July 1 of the year before ACS reporting.

HOME PRICES PROJECTED TO FALL IN HALF THE COUNTRY



Source: CoreLogic, Moody's, Amherst Pierpont Securities.



Renting the American Dream

Mary Beth Fisher
Senior Strategist, Amherst Pierpont Securities

THE DEMAND FOR RENTAL HOUSING SHOULD OUTPACE THE DEMAND FOR OWNER-OCCUPIED HOUSING OVER THE NEXT TWO DECADES.

The supply of rental housing depends on the availability of financing

- The GSEs and commercial banks are the dominant lenders for traditional multifamily, whose lending favors experienced, professional landlords and owners with portfolios of properties.
- Institutional operators can tap securitization for single-family rentals, but they still represent a sliver of a market dominated by mom-and-pop investors.
- Affordability issues will likely favor renting over owning in the short –term, increasing demand for single-family rentals as a crossover sector from renting to owning.
- Investors should stay overweight multifamily housing and single-family rentals, with particular emphasis on affordable housing where new construction constraints remain profound.



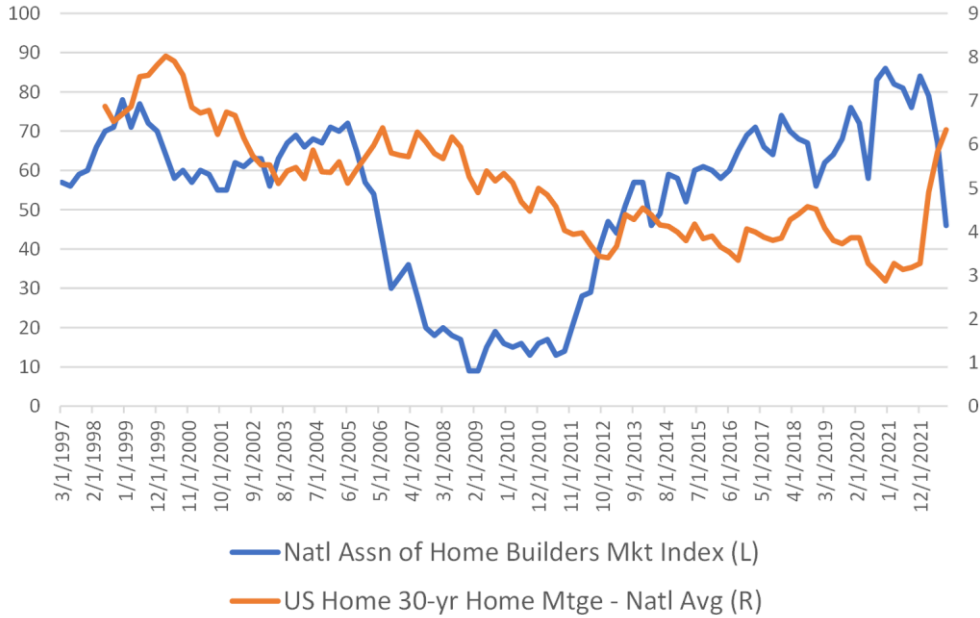
Homebuilders as bellwethers for US housing

Dan Bruzzo

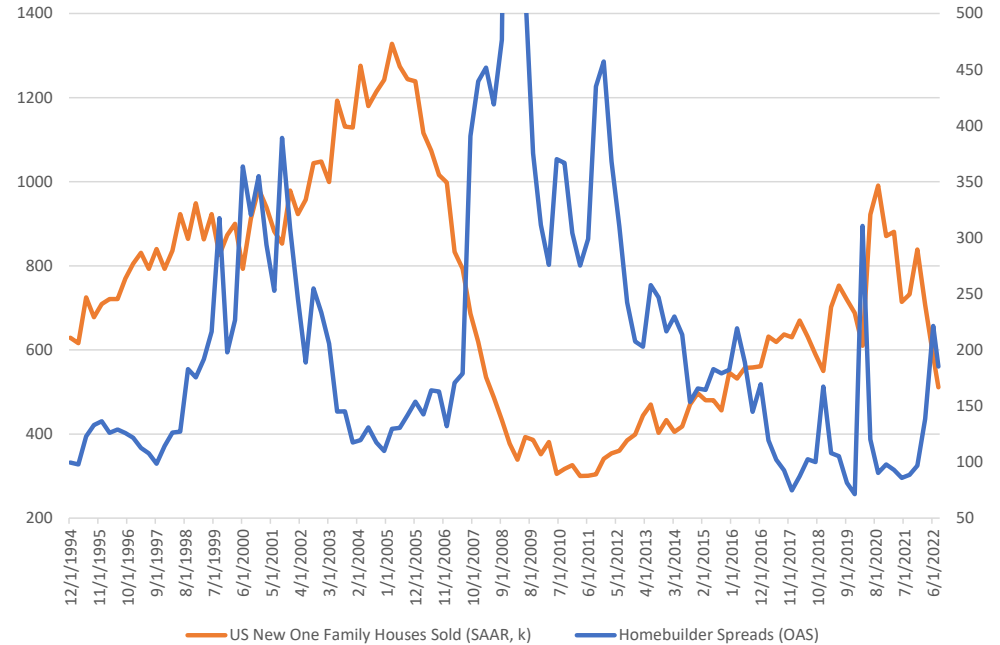
Senior Strategist, Amherst Pierpont Securities

HOUSING SIGNALS FROM THE HOMEBUILDERS

Homebuilder Sentiment vs 30-yr Fixed Mortgage Rates



Homebuilder Spreads vs New Home Sales

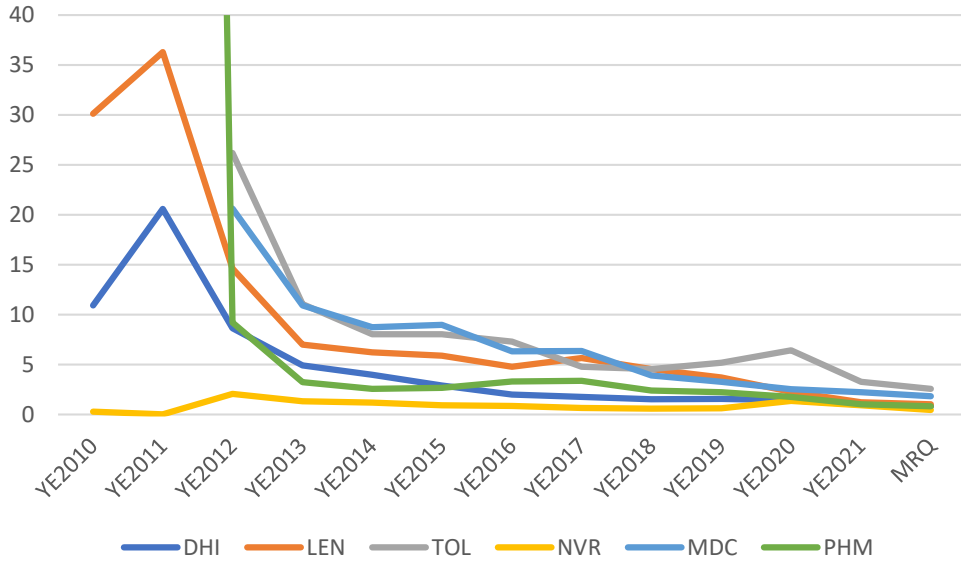


Source: Amherst Pierpont, Bloomberg LP, BankRate.com, Natl Association of Homebuilders

Source: Amherst Pierpont, Bloomberg LP, Right Y-Axis compressed for visual purposes, peak reaches >1,000

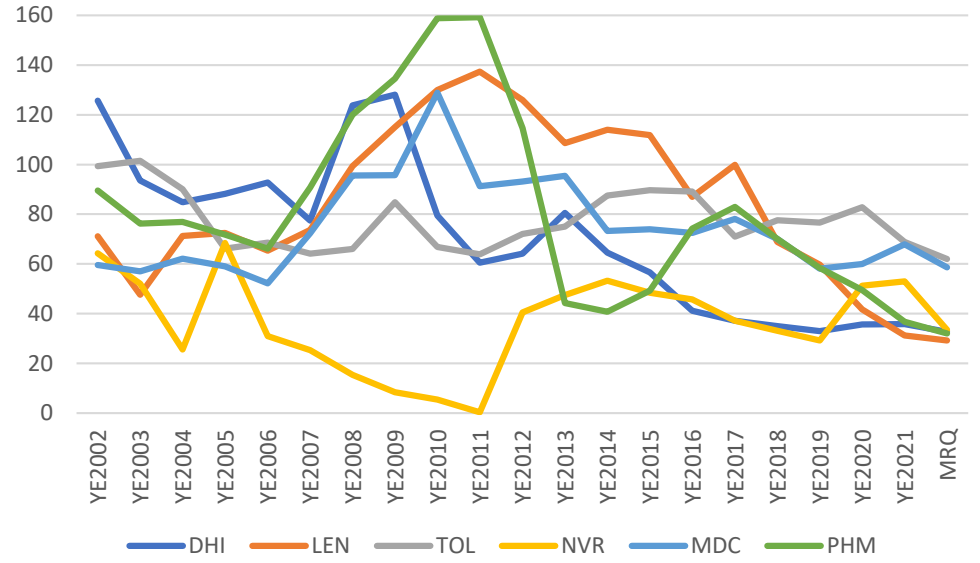
STRONGER HOMEBUILDER BALANCE SHEETS

IG Homebuilder Leverage



Source: Amherst Pierpont, Bloomberg, company filings
Left Y-axis compressed for visual purposes

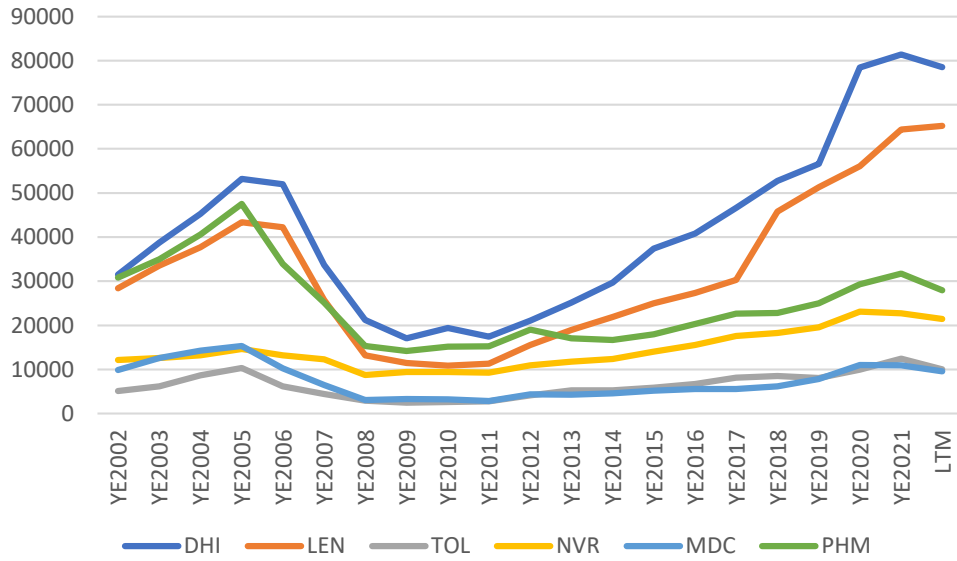
IG Homebuilder Debt/Equity



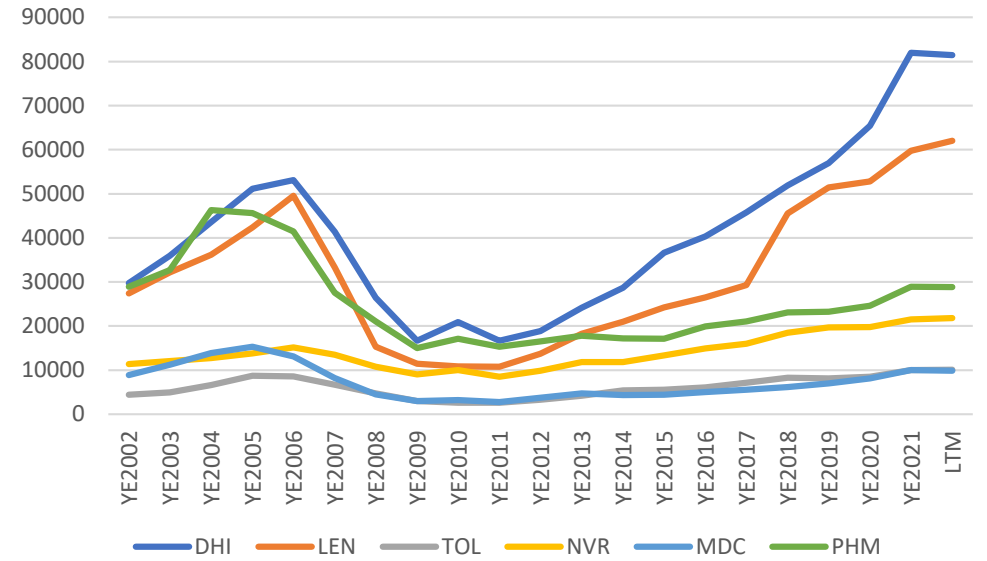
Source: Amherst Pierpont, Bloomberg, company filings

OPERATING METRICS MODERATING BUT STILL SOLID HISTORICALLY

IG Homebuilder New Homes Contracted



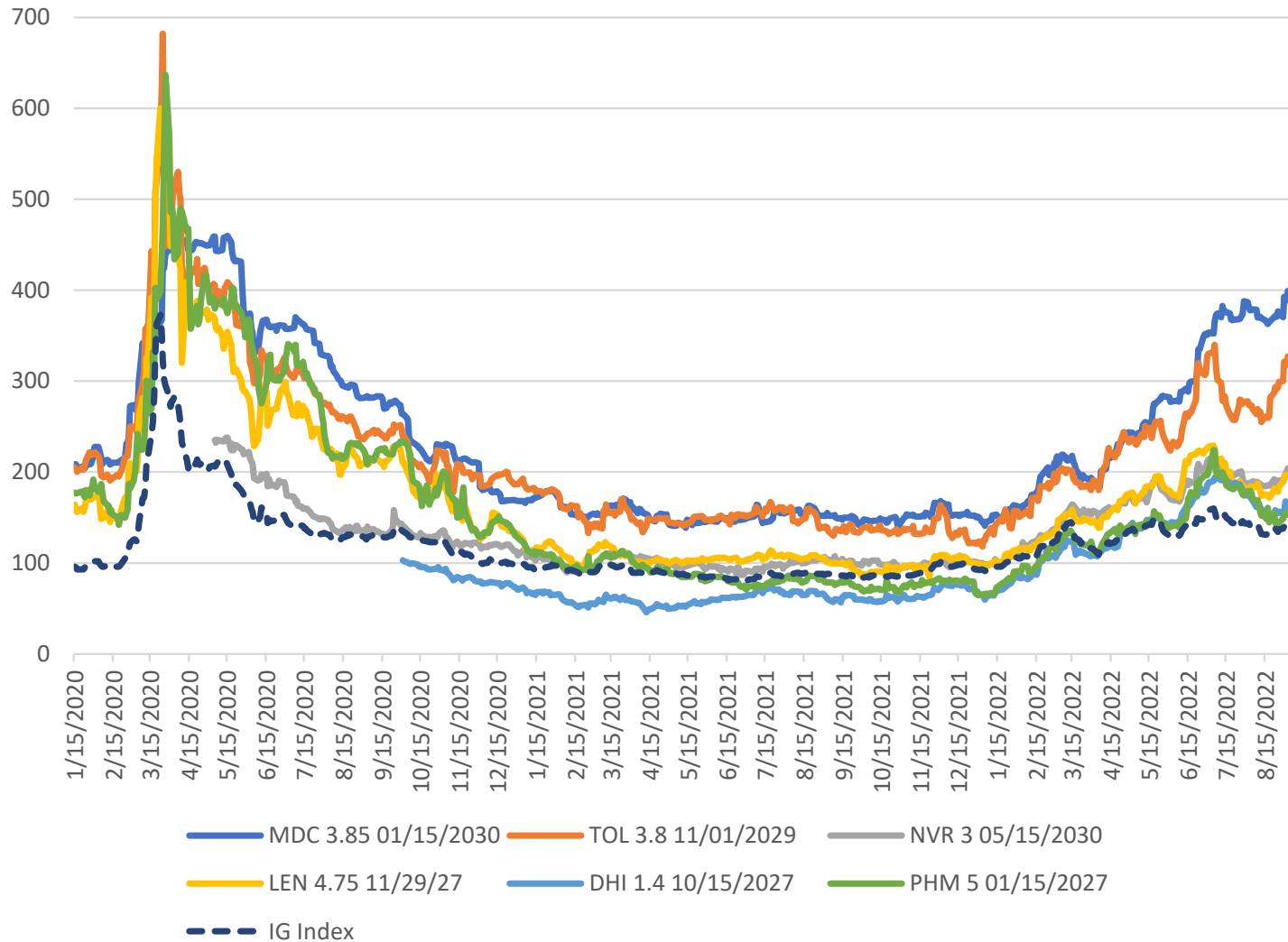
IG Homebuilder New Homes Delivered



Source: Amherst Pierpont, Bloomberg, company filings

EXCESSIVE SELLING VS BROAD IG CREATES OPPORTUNITY

IG Homebuilders – Intermediate Cash Bond Spreads



Source: Amherst Pierpont, Bloomberg/TRACE



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