



HOUSING: 2Q18 THEMES

INTRODUCING “**THE** OCHO”



April 11th, 2018

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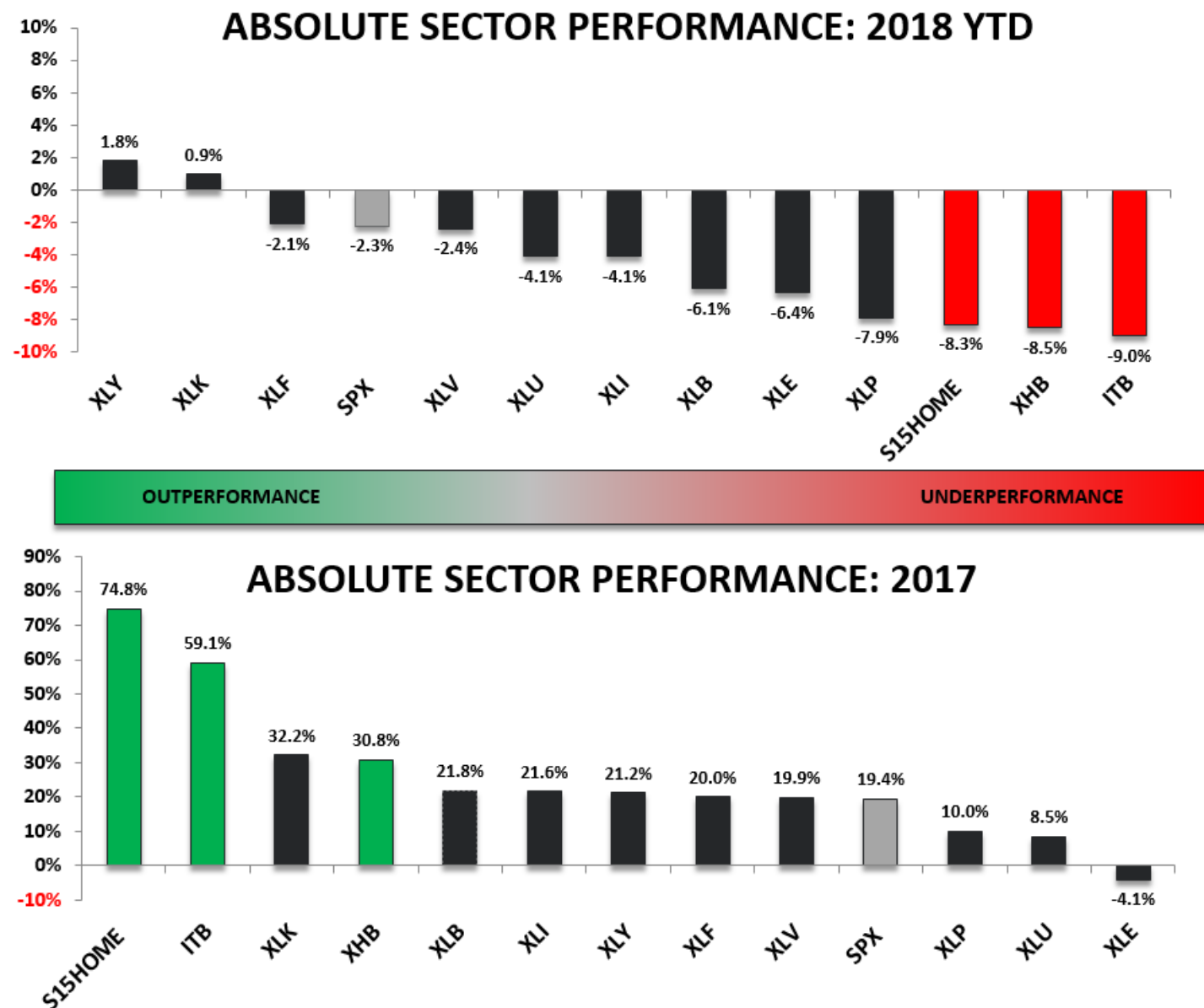
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PLEASE SUBMIT QUESTIONS* TO
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PERFORMANCE: FROM FIRST TO WORST



INDUSTRY YTD PERFORMANCE: BROADLY NEGATIVE

HOUSING: SUBSECTOR PERFORMANCE

HEDGEYE HOUSING

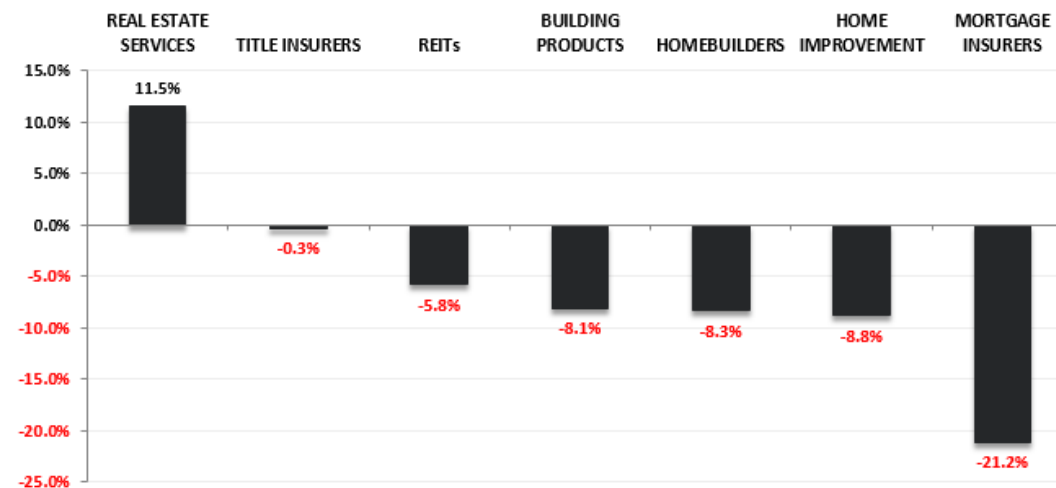
INDEX	Ticker	2Q17 % Chg	3Q17 % Chg	4Q17 % Chg	1Q18 % Chg	2018 YTD % Chg
S&P 500	SPX	2.6%	4.0%	6.1%	-1.2%	-2.3%
HOMEBUILDERS						
S&P Homebuilder Index	S15HOME	7.3%	9.2%	23.9%	-11.2%	-8.3%
	Relative	4.7%	5.2%	17.8%	-10.0%	-6.1%
BUILDING PRODUCTS						
S&P Building Products Index	S15BUILX	4.9%	-0.7%	2.6%	-5.4%	-8.1%
	Relative	2.3%	-4.6%	-3.5%	-4.2%	-5.9%
HOME IMPROVEMENT						
S&P Home Improvement Index	S5HOMI	1.6%	5.7%	16.0%	-5.9%	-8.8%
	Relative	-1.0%	1.7%	9.9%	-4.6%	-6.5%
REITs						
Apartment REITs*	.REIT U Index	5.0%	-0.2%	-1.8%	-6.3%	-5.8%
	Relative	2.5%	-4.1%	-8.0%	-5.1%	-3.6%
REAL ESTATE SERVICES						
Real Estate Services*	.RESRVCS U Index	2.3%	6.8%	-21.5%	12.9%	11.5%
	Relative	-0.3%	2.8%	-27.6%	14.1%	13.8%
MORTGAGE INSURERS						
Mortgage Insurers*	.MI U Index	1.2%	11.0%	15.3%	-5.1%	-21.2%
	Relative	-1.3%	7.1%	9.2%	-3.9%	-18.9%
TITLE INSURERS						
Title Insurers*	.TI U Index	9.3%	-1.1%	12.9%	3.5%	-0.3%
	Relative	6.8%	-5.1%	6.8%	4.7%	2.0%
SUBSECTOR AVE						
	Abs	4.5%	4.4%	6.8%	-2.5%	-5.9%
	Relative	1.9%	0.4%	0.6%	-1.3%	-3.6%

*Equal Weighted Composites: REITs: AIV, AVB, CPT, EQR, ESS, MAA, UDR; RE Services: RLG, RMAX; MI: ESNT, MTG, NMIH, RDN; TI: FNF, FAF, STC

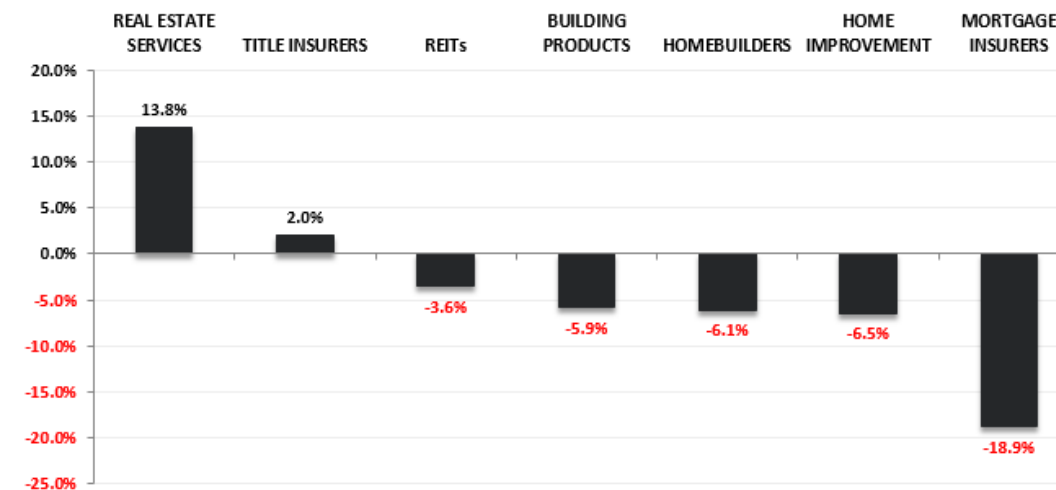
Source: Bloomberg, HEDGEYE

2018 YTD PERFORMANCE

ABSOLUTE



RELATIVE



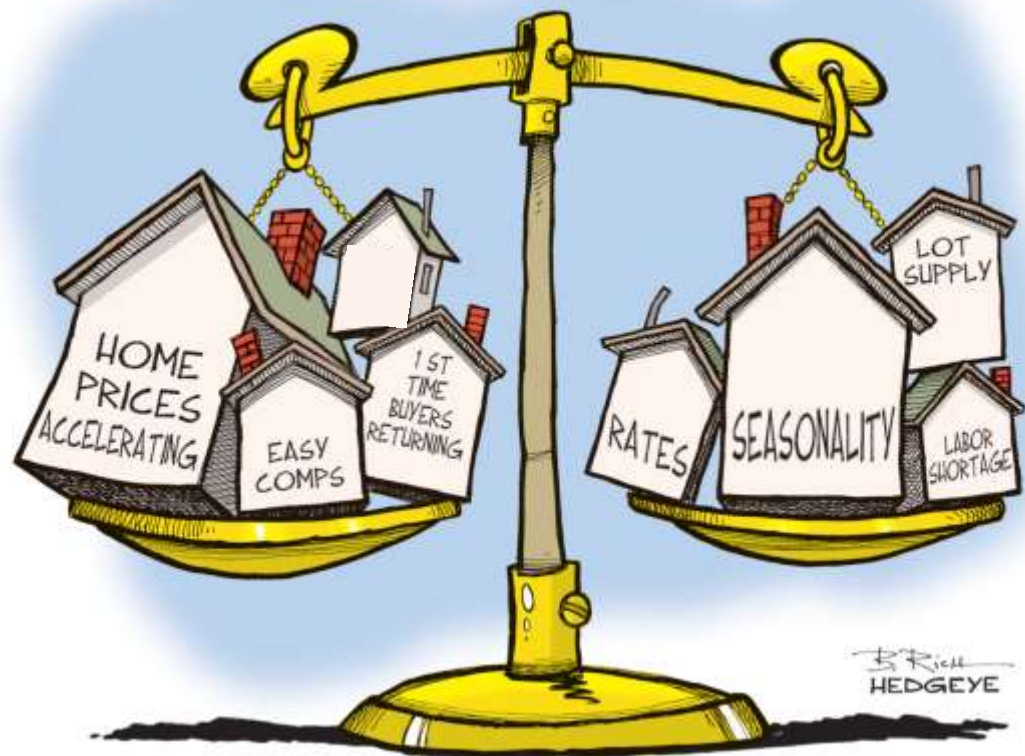
THE COMPENDIUM: A BETTER/WORSE HEATMAP

HEDGEYE HOUSING COMPENDIUM

					TRADE/TREND/TAIL			Rate of Change		
					Short Term	Intmed Term	Long Term	Short Term	Intmed Term	Long Term
Most Recent Data					Prior Period	3M Ago	12M Ave	MoM Chg	3M Chg	vs 12M Avg
Period	Latest Data	Last Price								
Home Prices	Case-Shiller 20 City HPI YoY NSA	Jan-18	Better	6.4%	6.3%	6.3%	6.0%	0.1%	0.1%	0.4%
	Case-Shiller 20 City HPI MoM SA	Jan-18	Better	0.8%	0.7%	0.7%	0.5%	0.1%	0.1%	0.2%
	Corelogic HPI - NSA YoY % Chg	Jan-18	Better	6.6%	6.2%	6.0%	6.0%	0.4%	0.5%	0.6%
	Corelogic (Ex-Dist.) HPI - NSA YoY % Chg	Jan-18	Better	5.9%	5.5%	5.2%	5.0%	0.5%	0.7%	0.9%
	FHFA HPI - NSA YoY % Chg	Jan-18	Better	7.3%	6.5%	6.7%	6.6%	0.8%	0.6%	0.7%
Supply & Demand: Existing	MBA Purchase Apps Index (Mo. Ave)	Mar-18	Better	244.9	240.2	240.2	240.5	2.0%	1.9%	1.8%
	NAR: Pending Home Sales (Index)	Feb-18	Better	107.5	104.3	109.6	108.7	3.1%	-1.9%	-1.1%
	NAR: Existing Home Sales (SAAR)	Feb-18	Better	5.54	5.38	5.72	5.52	3.0%	-3.1%	0.4%
	NAR: Existing Home Inv. (millions units)	Feb-18	Worse	1.59	1.52	1.67	1.77	4.6%	-4.8%	-10.3%
	NAR: Existing Home Inv: Months Supply	Feb-18	Worse	3.44	3.39	3.50	3.86	1.6%	-1.7%	-10.8%
Supply & Demand: New Homes	NAHB: HMI	Mar-18	Worse	70	71	74	69	-1.0	-4.0	0.0
	Census: Total Starts	Feb-18	Worse	1236	1329	1299	1217	-7.0%	-4.8%	1.5%
	Census: SF Starts	Feb-18	Better	902	877	946	860	2.9%	-4.7%	4.9%
	Census: Total Permits	Feb-18	Worse	1298	1377	1303	1267	-5.7%	-0.4%	2.4%
	Census: SF Permits	Feb-18	Worse	872	877	865	833	-0.6%	0.8%	4.7%
	Resi Construction Spending (in Billions)	Jan-18	Better	530	529	525	521	0.2%	1.0%	1.6%
	Census: New Home Sales	Feb-18	Worse	618	622	696	618	-0.6%	-11.2%	0.0%
	Census: New Home Inventory (000)	Feb-18	Worse	301	297	291	280	1.3%	3.4%	7.4%
Miscellaneous	Interest Rates (30 Year FRM)	Mar-18	Worse	4.67%	4.59%	4.20%	4.27%	0.1%	0.5%	0.4%
	NAR: Affordability Index (Composite)	Jan-18	Better	163.0	160.1	161.7	158.9	1.8%	0.8%	2.6%
	ITB Price (EOP)	Apr-18	Better	39.77	39.57	45.05	37.53	0.5%	-11.7%	6.0%
	XHB Price (EOP)	Apr-18	Worse	40.66	41.05	45.75	40.35	-1.0%	-11.1%	0.8%

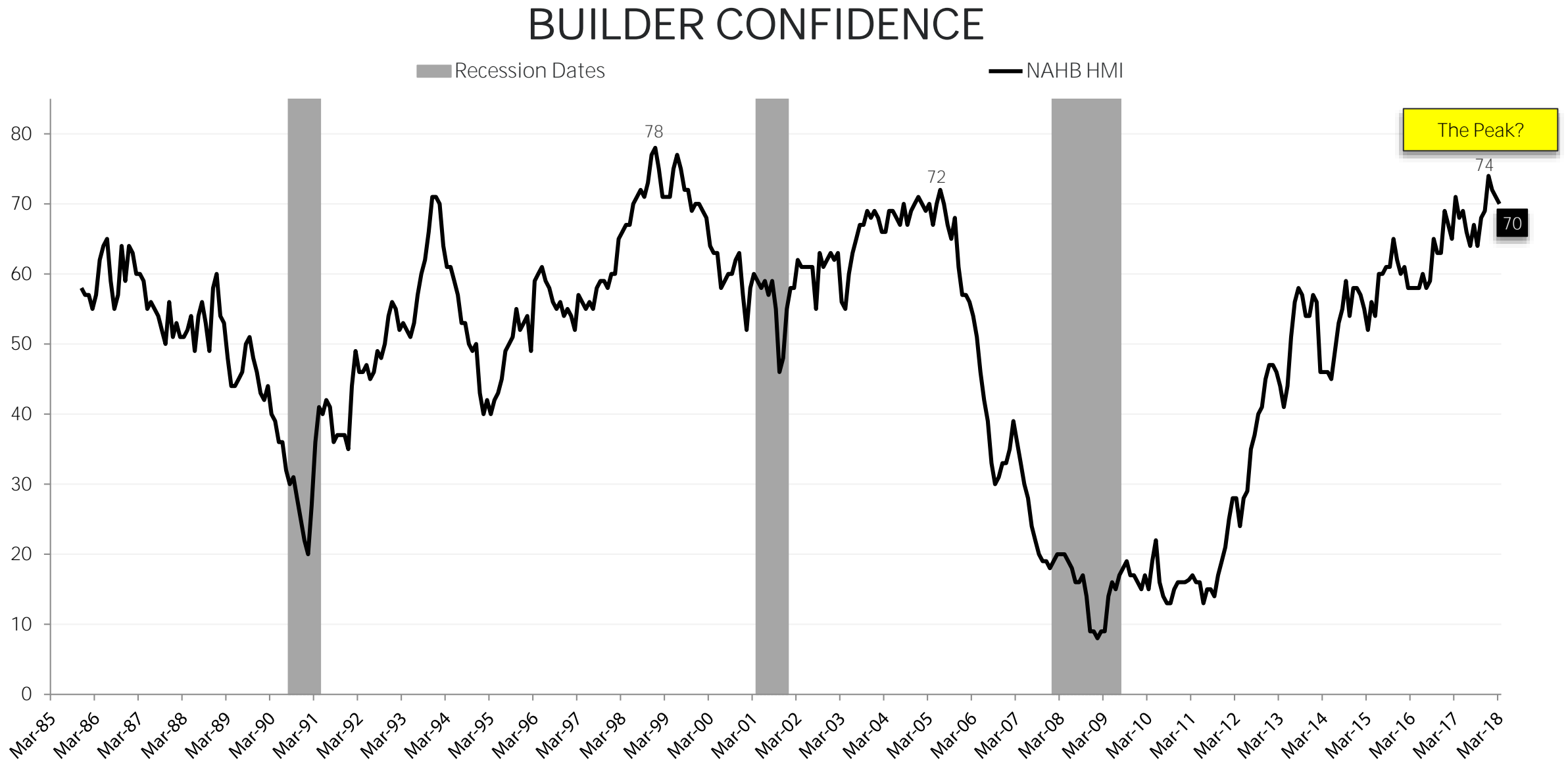
Source: Hedgeye Risk Management, S&P, Corelogic, FHFA, MBA, NAR, NAHB, Census Dept., Factset, Bloomberg

HEDGEYE



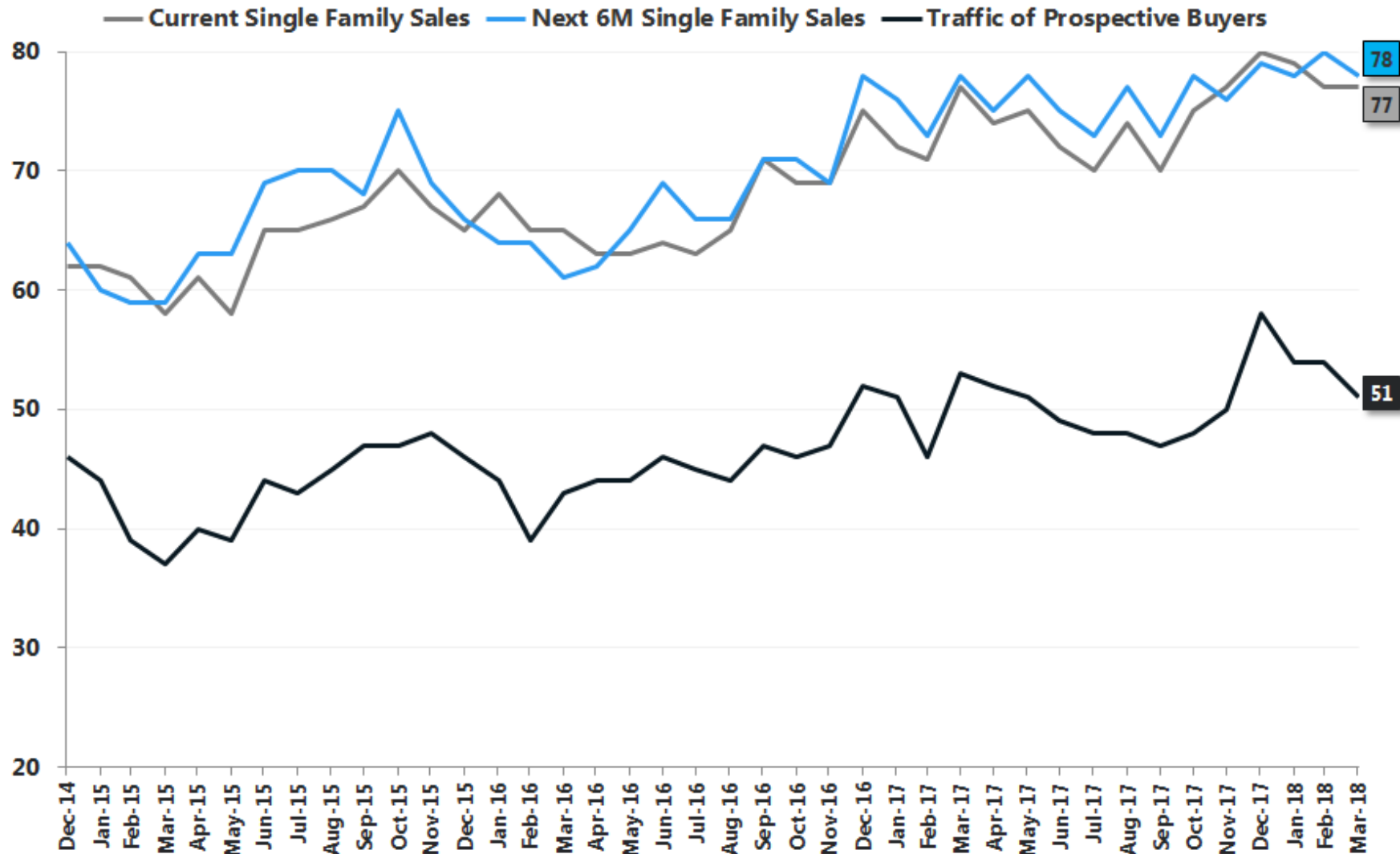
FUNDAMENTAL REFRESH

THE #PEAK? BUILDER CONFIDENCE



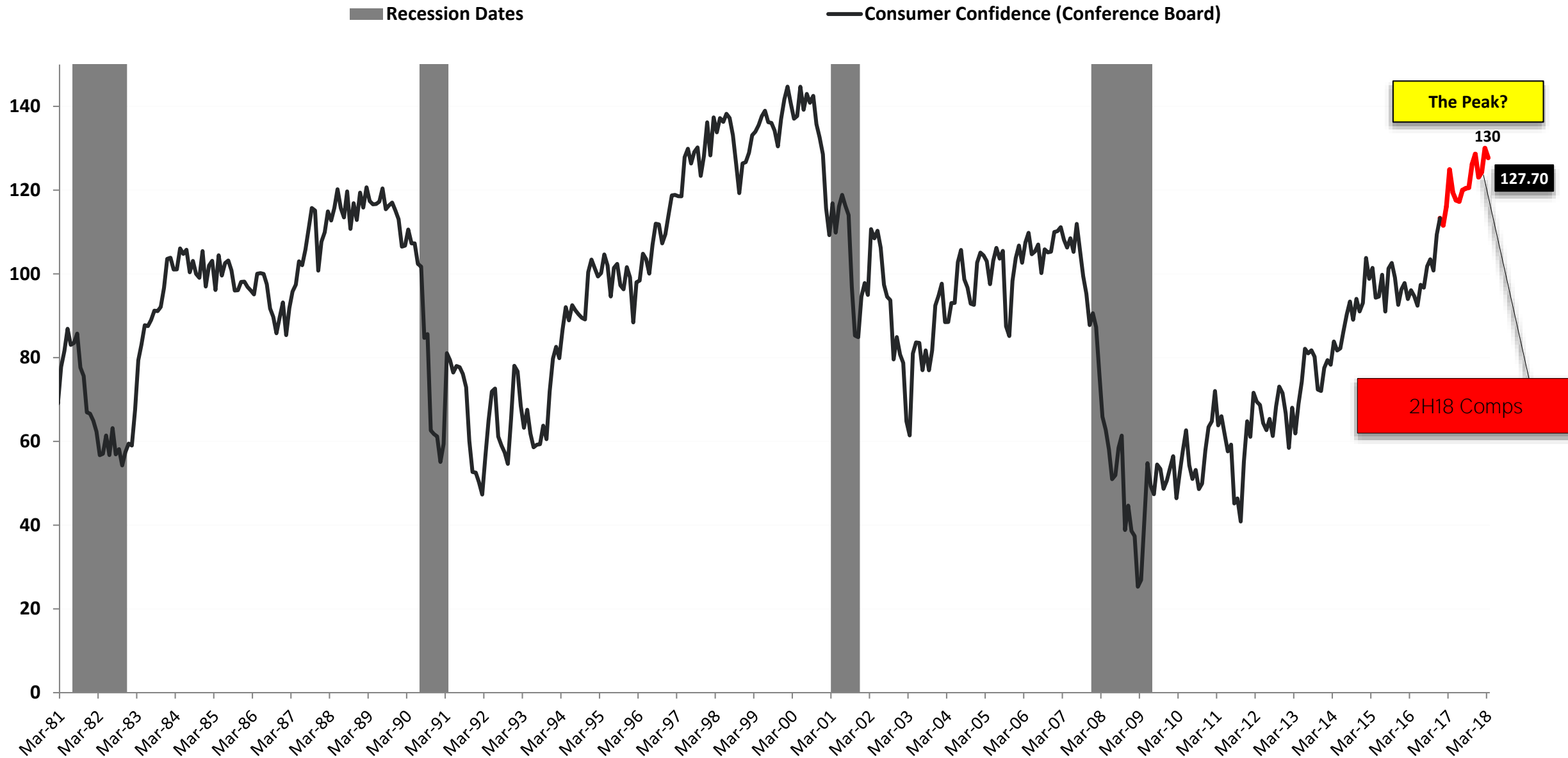
TRAFFIC ↓ ... WEATHER DISTORTION OR ORGANIC DECELERATION?

NAHB HMI: SURVEY INDICATORS



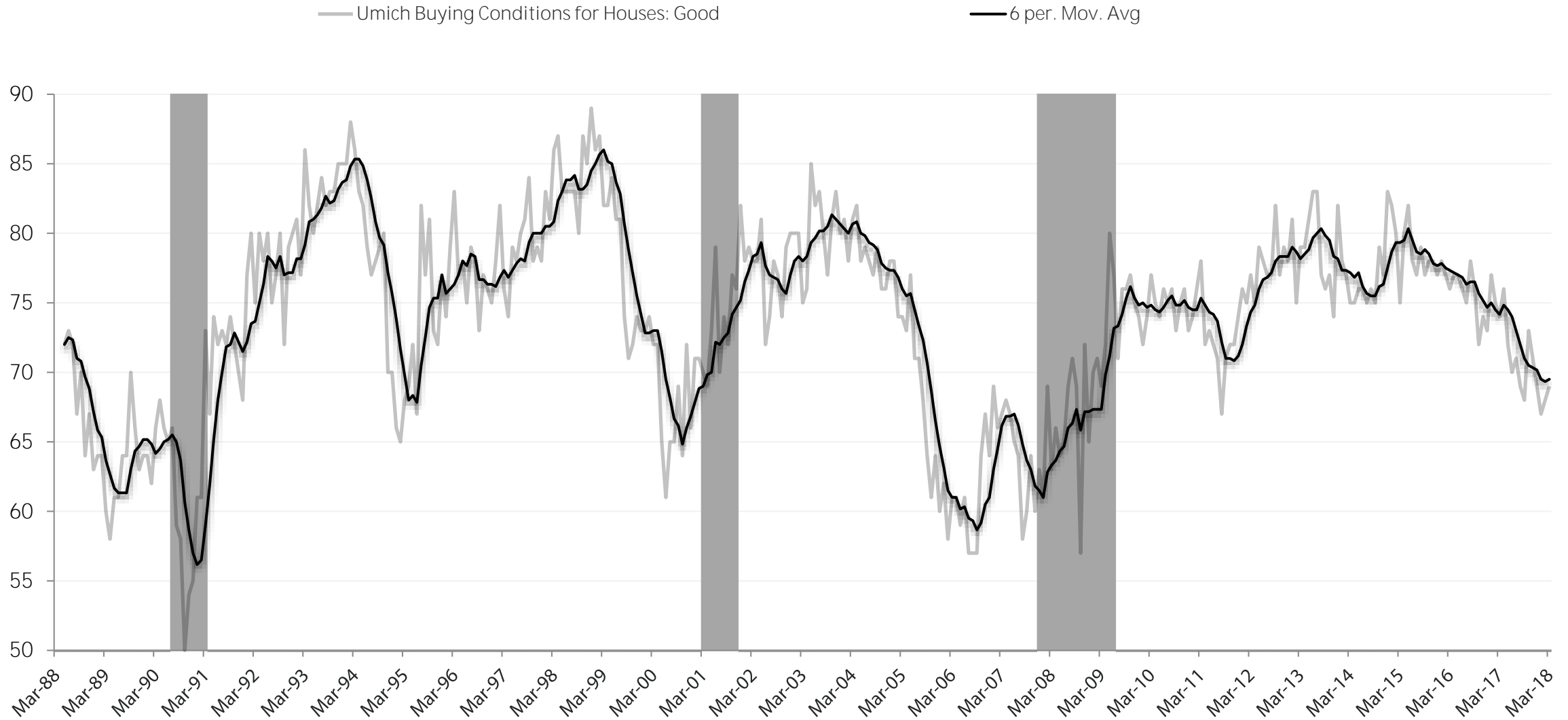
Interestingly, the biggest anchor on the overall builder confidence number was in fact foot traffic for prospective buyers. Thematically, some buyers may be dissuaded by the rising price environment in the new home market; but more likely, the severe winter conditions drove potential buyers indoors instead of at open houses.

THE #PEAK? CONSUMER CONFIDENCE



PAST #PEAK? ... HOUSING CONFIDENCE

CONSUMER CONFIDENCE AROUND HOUSING



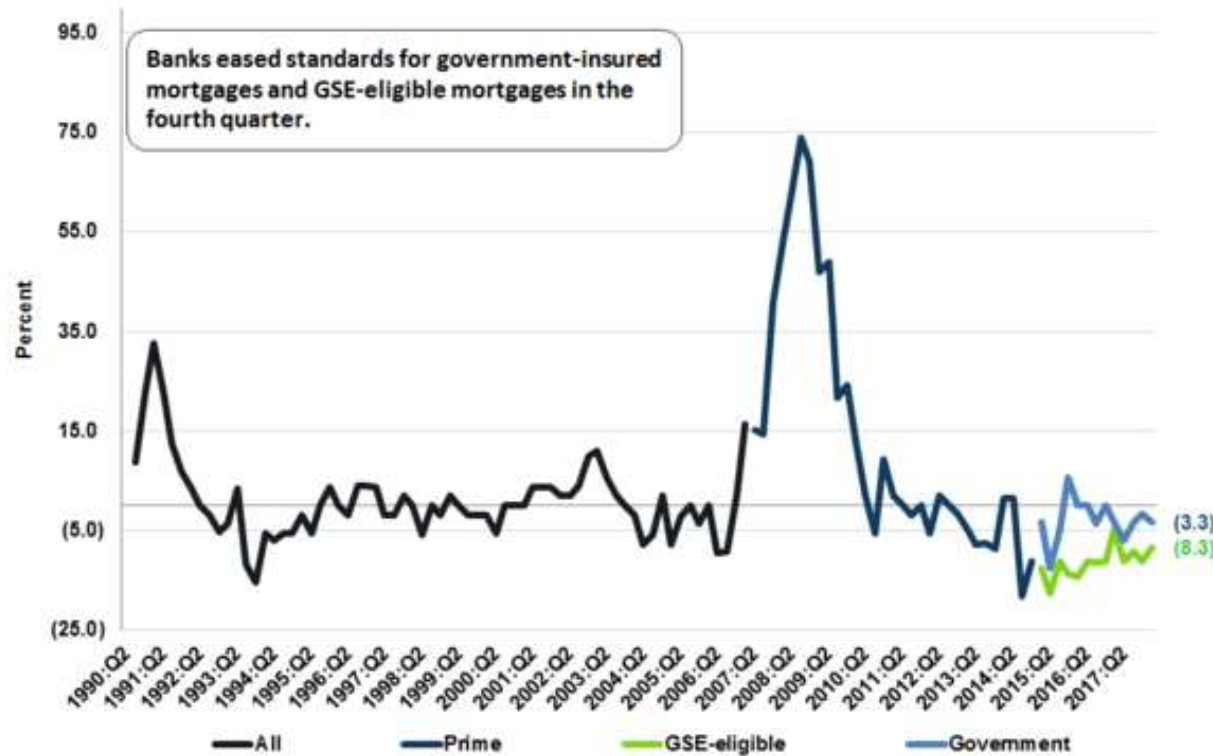
THE CREDIT BOX CONTINUES TO EXPAND

Fannie Mae now allowing lenders to contribute to borrower closing costs

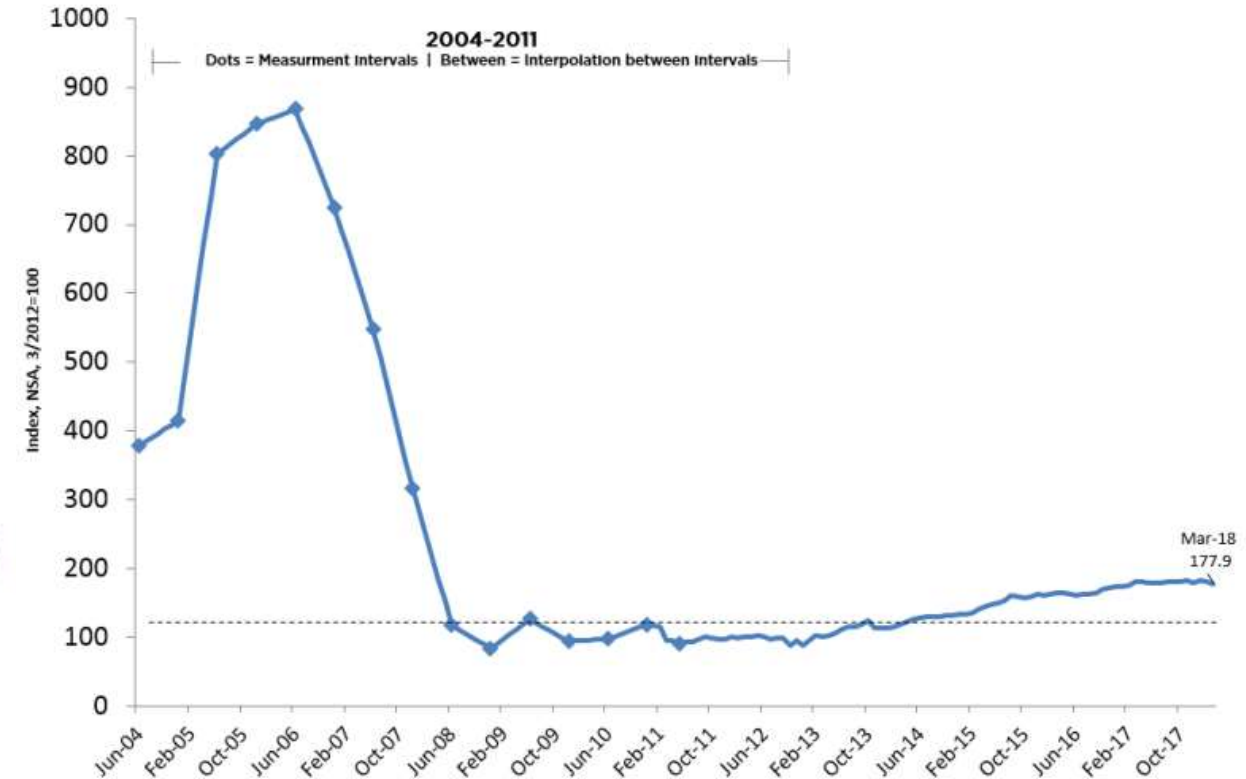
Fannie Mae raises debt-to-income ratio to further expand mortgage lending

Study finds borrowers with 50% DTI not prone to default

Net Percentage of Banks Tightening Standards for Residential Mortgage Loans



Mortgage Credit Availability Index (NSA, 3/2012 = 100)
Expanded Historical Series



FHFA takes next step to changing credit scoring models, requests input

FHFA: Here are 10 things the GSEs did to improve access to credit in 2017

Looks to expand homeownership opportunities

DATA SOURCE: BLOOMBERG, HOUSING WIRE

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THE HOMEOWNERSHIP RATE CONTINUES TO IMPROVE

U.S. HOMEOWNERSHIP RATE

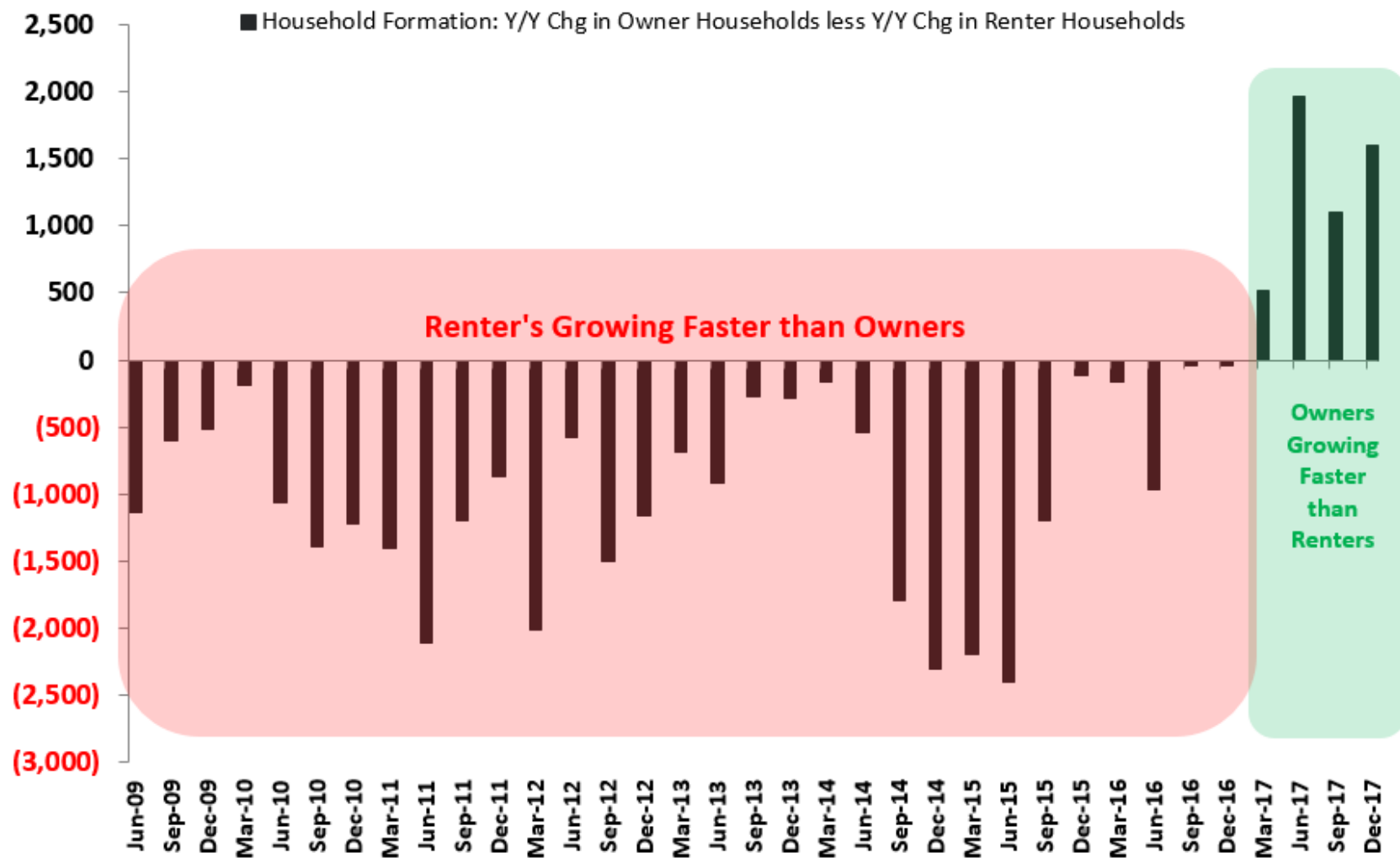


U.S. homeownership rates appear to have troughed in 2016 and have now improved for 6 consecutive quarters. Headship rates – in the aggregate and across 18-34YOA – should begin to show similar improvement.

OWNER GROWTH > RENTER GROWTH

U.S. HOUSEHOLD FORMATION BY TYPE

Household Formation: Owner Households less Renter Households

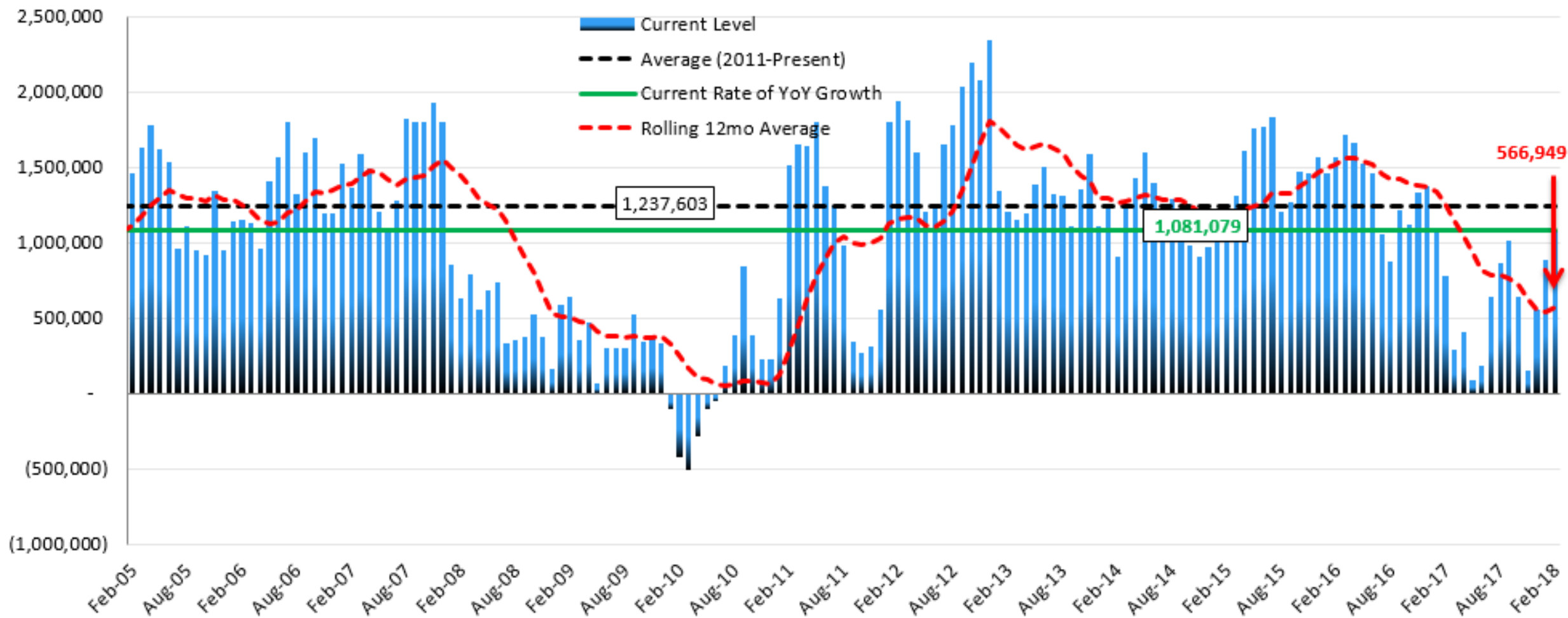


Part and parcel of the acceleration in US homeownership rate growth extends from the transition in Household Formation from predominately renter household growth to owner household growth.

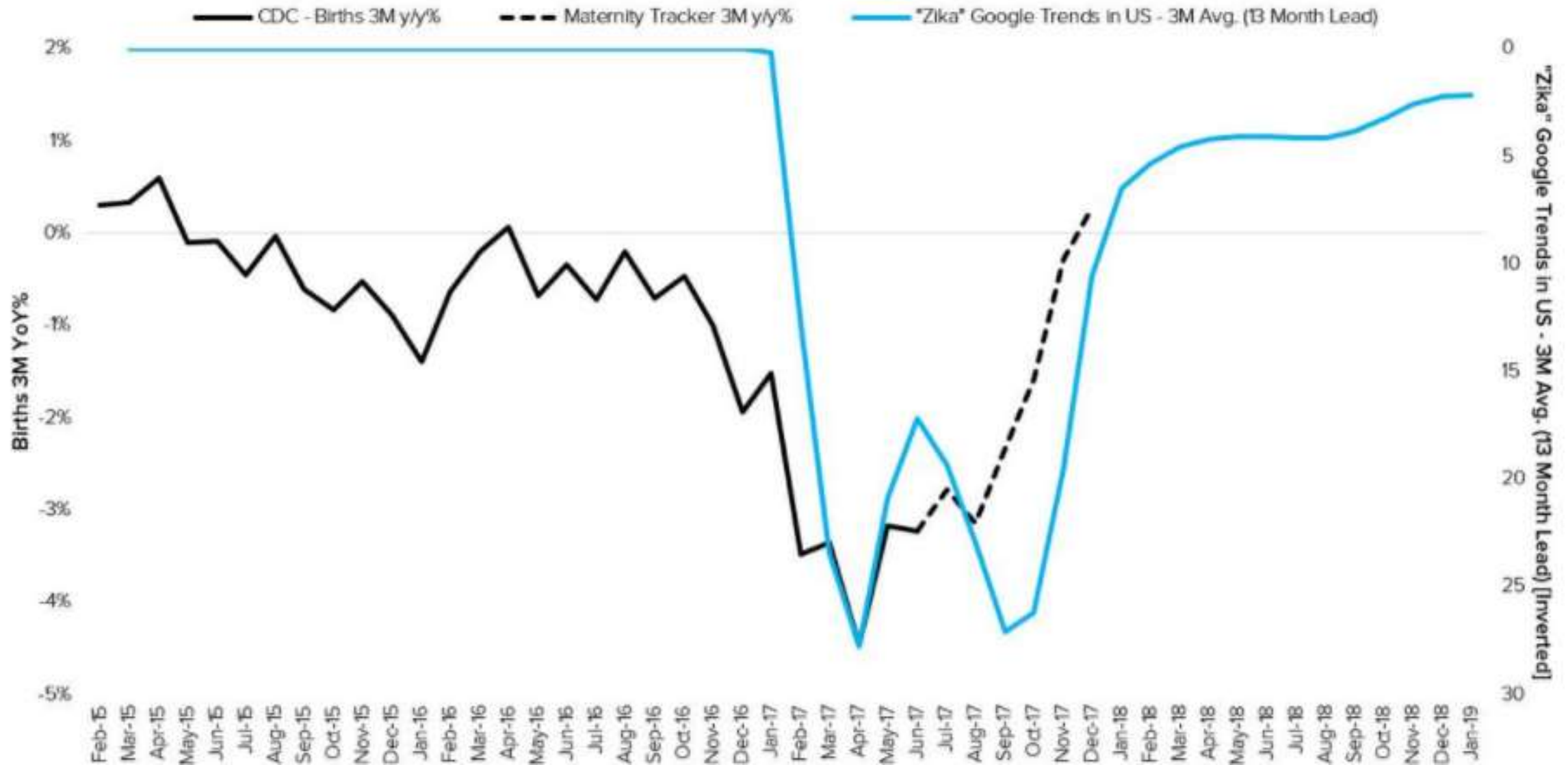
The post GFC trend reversed in 1Q17 and has persisted over the past year with owner household growth outpacing that of renters.

HOUSEHOLD FORMATION: AN ANOMALOUS 2017

YEAR-OVER-YEAR GROWTH IN US HOUSEHOLDS BY MONTH (2005-PRESENT)



THE ZIKA THEORY ... IS COMPELLING



OUR SURVEY SIGNALLED A POTENTIALLY MEANINGFUL IMPACT

The potential impact to births stemming from Zika concerns was not inconsequential at almost 16%.

Hedgeye Survey Questions & Responses	Total	No - have children, no plans for more	No - not planning to have any children	No - on hold because of Zika virus	No - on hold for economic reasons	Yes - in the next 1-3 years	Yes - 3+ years from now
National	4,976	1,176	1,144	187	396	996	1,077

Deterred by Zika	187
Planning on having children soon	996
Total	1183

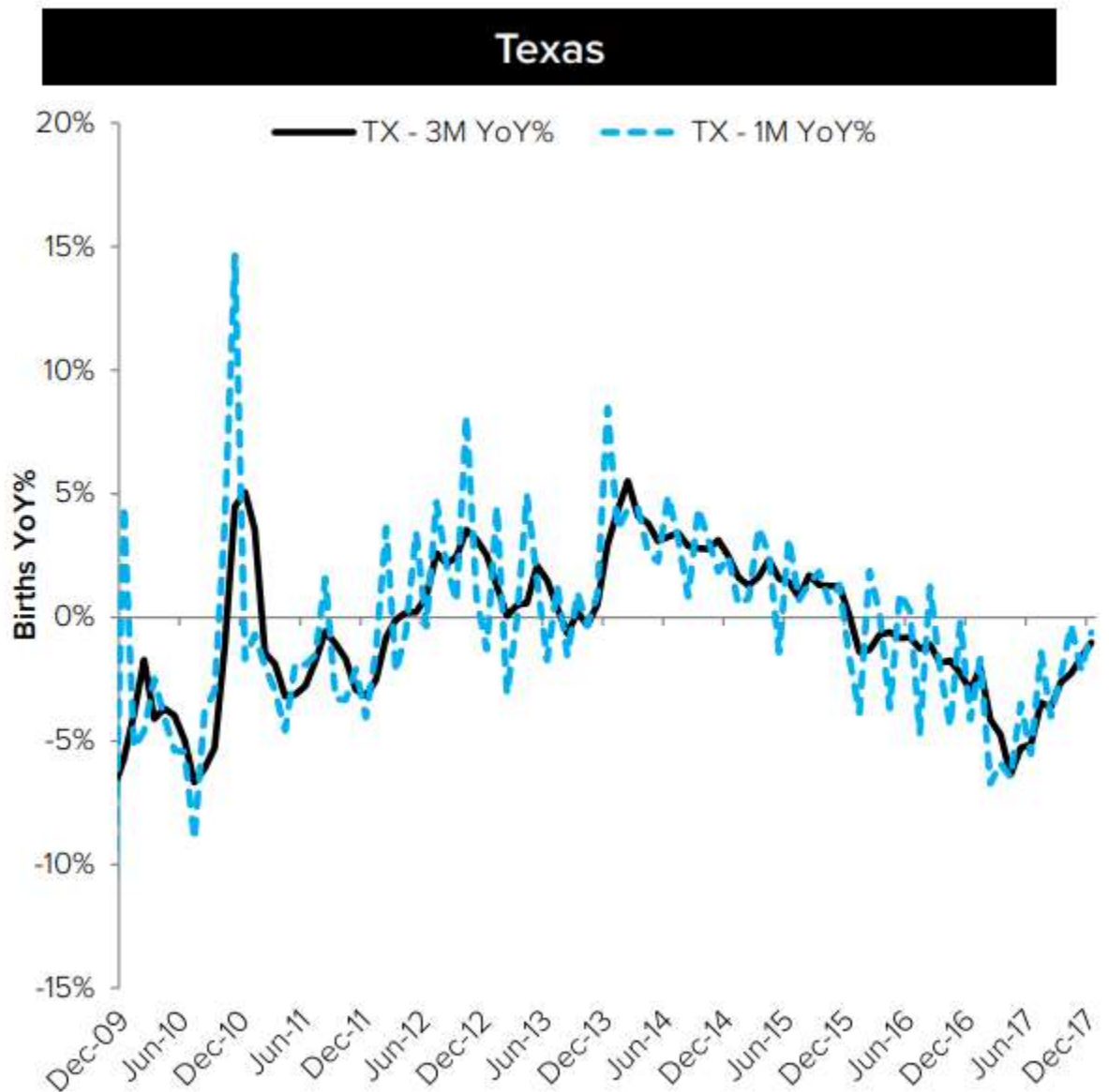
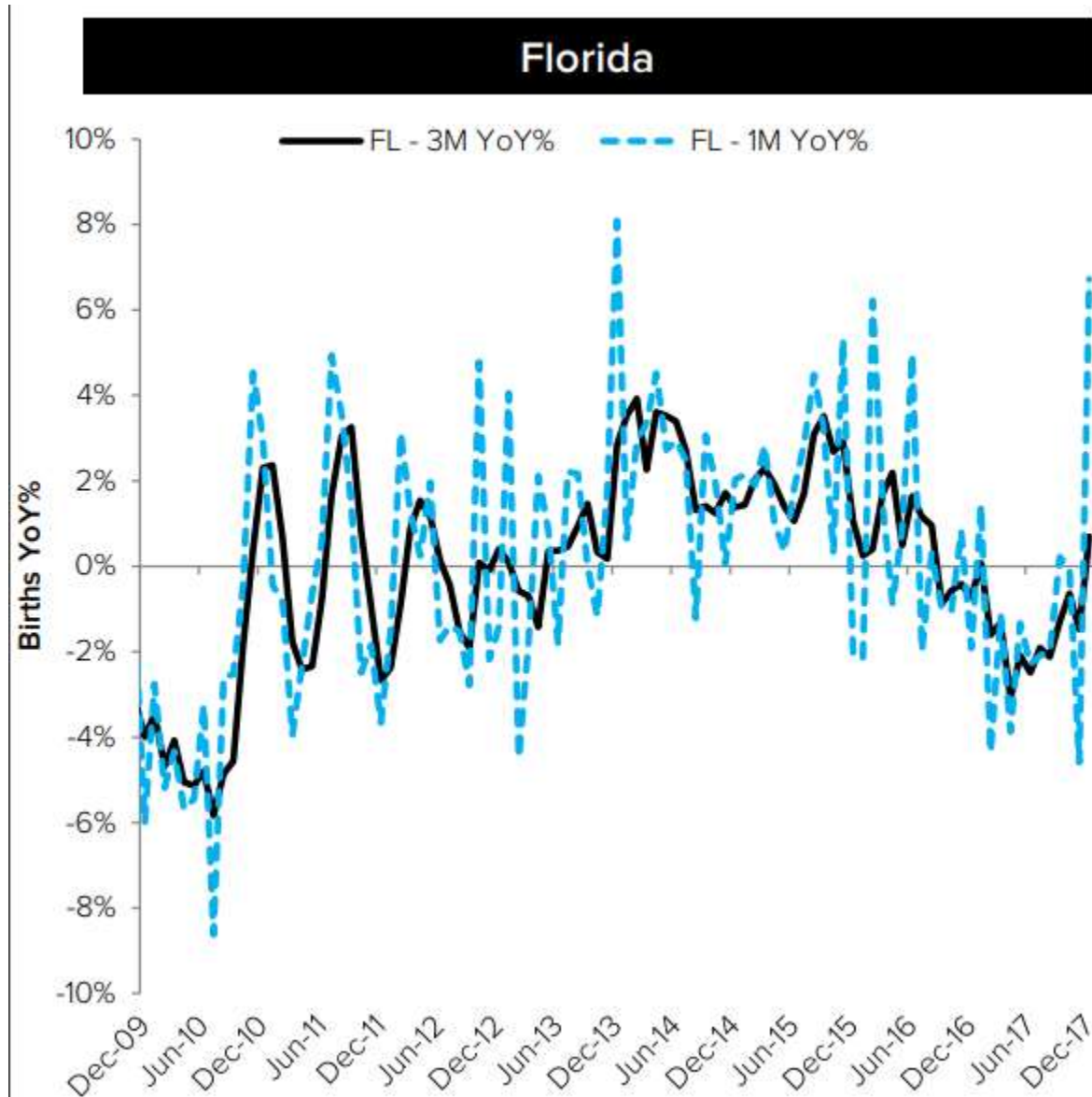
Numerator - Zika's Deterrant Effect	187
Denominator - (Planning to have children soon + Zika's Deterrant Effect)	1183

Zika's potential impact on maternity rates (Numerator / Denominator)	15.8%
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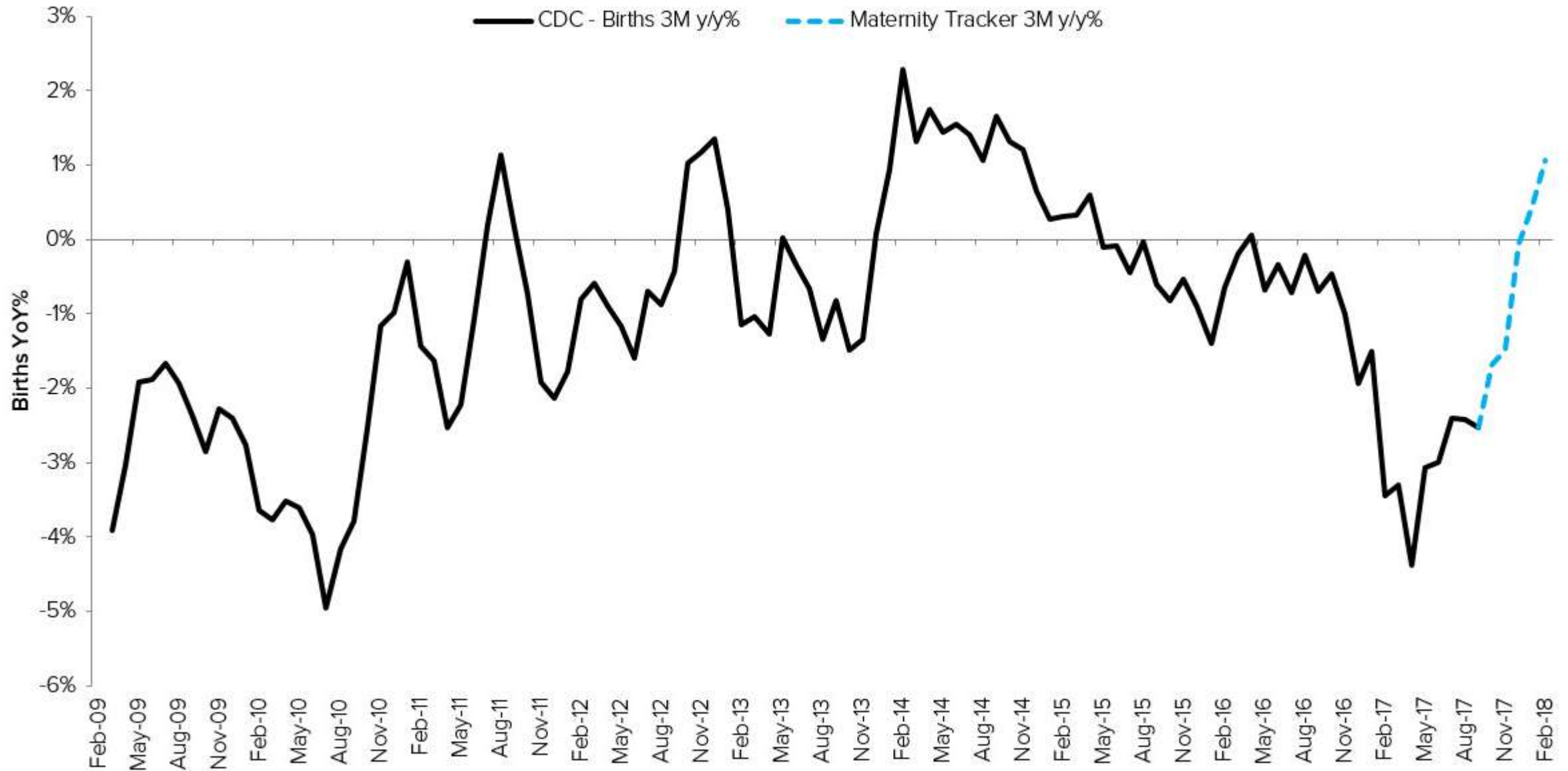
Number of births (2014), CDC	3,988,076
Zika's potential impact	(630,406)

Source: Hedgeye, CDC

FL & TX BIRTH TRENDS CORROBORATE

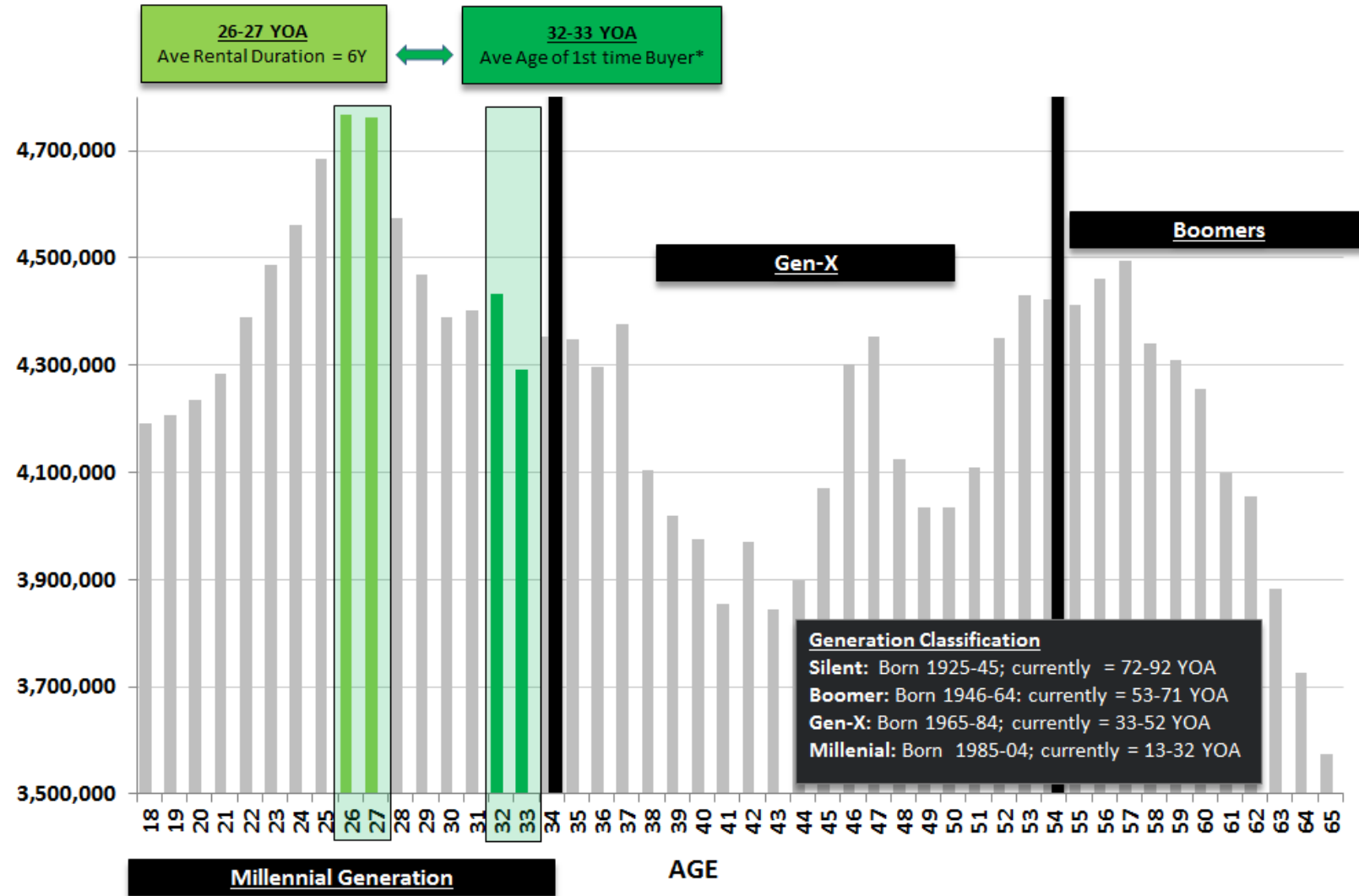


MATERNITY TRENDS ARE INFLECTING



THE DEMOGRAPHIC DEMAND WAVE

POPULATION DISTRIBUTION & CLASSIFICATION

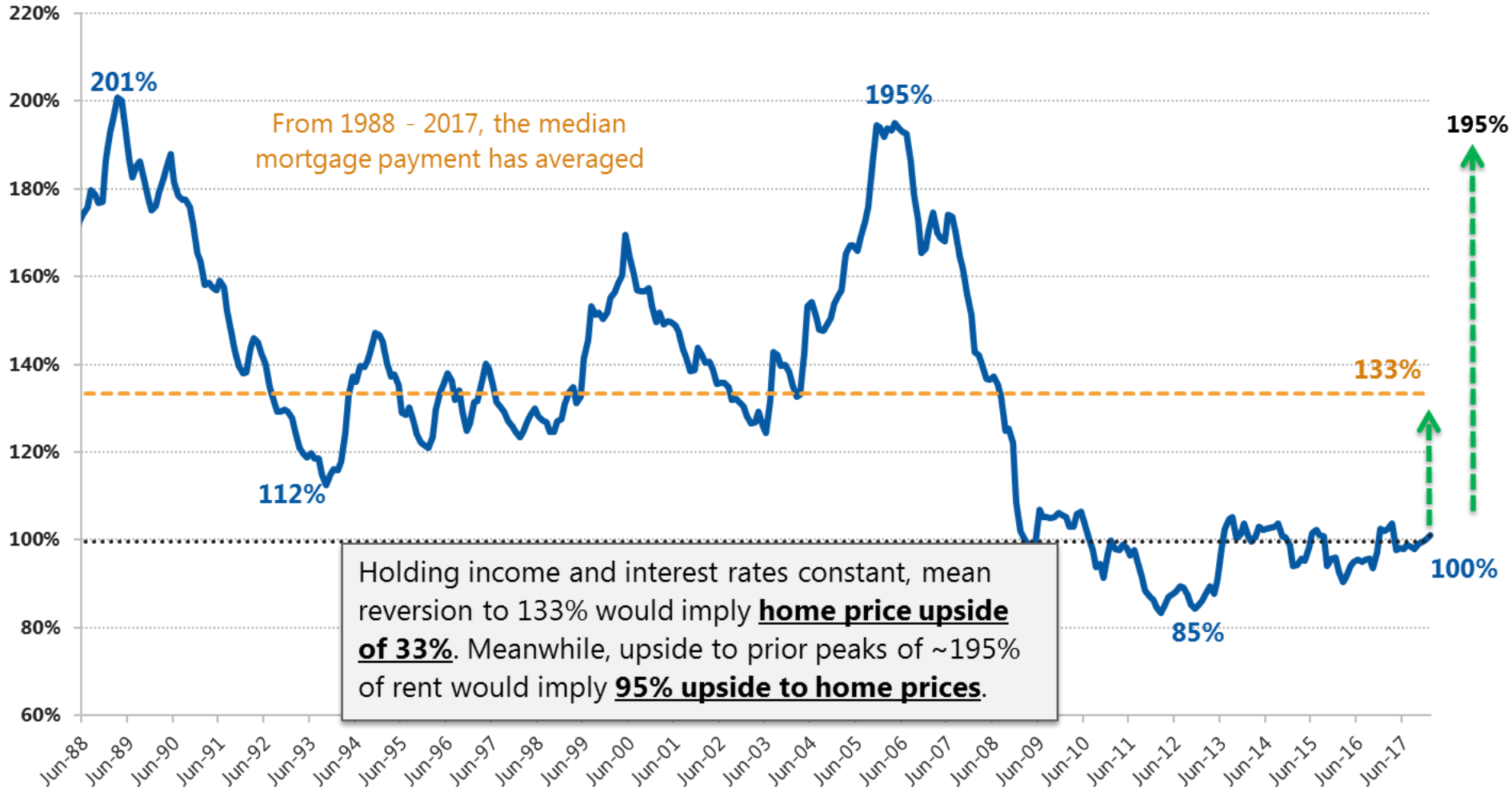


Knowing that the median first time buyer age is 32/33 is critical because it allows us to look at the coming demographic wave. This chart shows the size of the current 32/33 YOA cohort – roughly 4.3-4.4 million. The 26/27 YOA cohort is 4.8 million by comparison. 2020-2022 will see an extraordinary housing bull market.

AFFORDABILITY DYNAMICS: MORTGAGE VS RENT

RATIO OF MEDIAN MORTGAGE PAYMENT TO MEDIAN RENT

— Median Mortgage/Median Rent Current Level - - - - - Average Level (1988-Present)



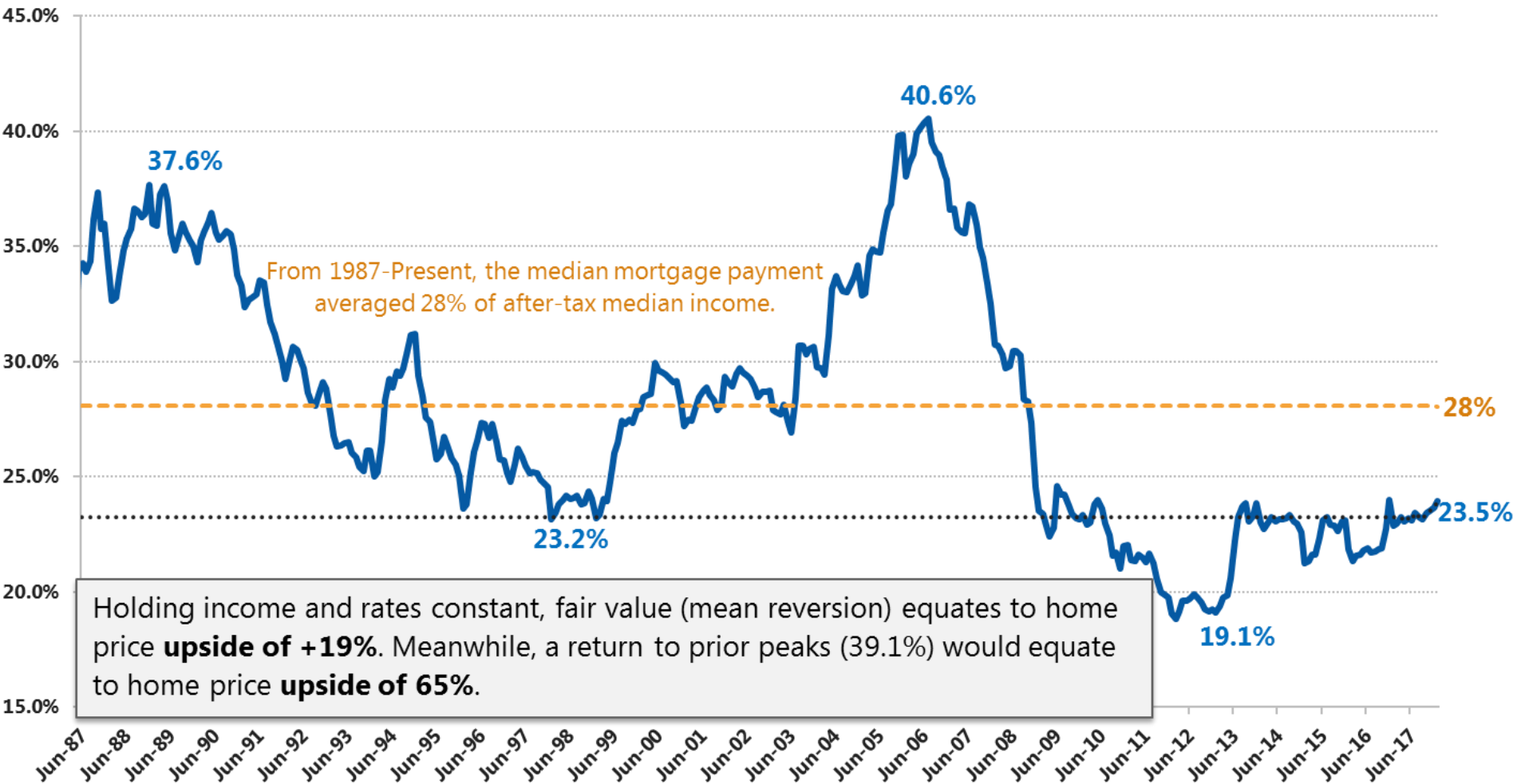
The ratio of median mortgage payments to median rental payments has historically ranged between parity at the lows of the cycle, and at 2 times that level at the highs.

Currently, the ratio sits at 100%, implying that home prices could nearly double on a national basis before reaching prior cycle-peak levels.

AFFORDABILITY DYNAMICS: MORTGAGE VS INCOME

MEDIAN MORTGAGE PAYMENT AS A % OF MEDIAN INCOME

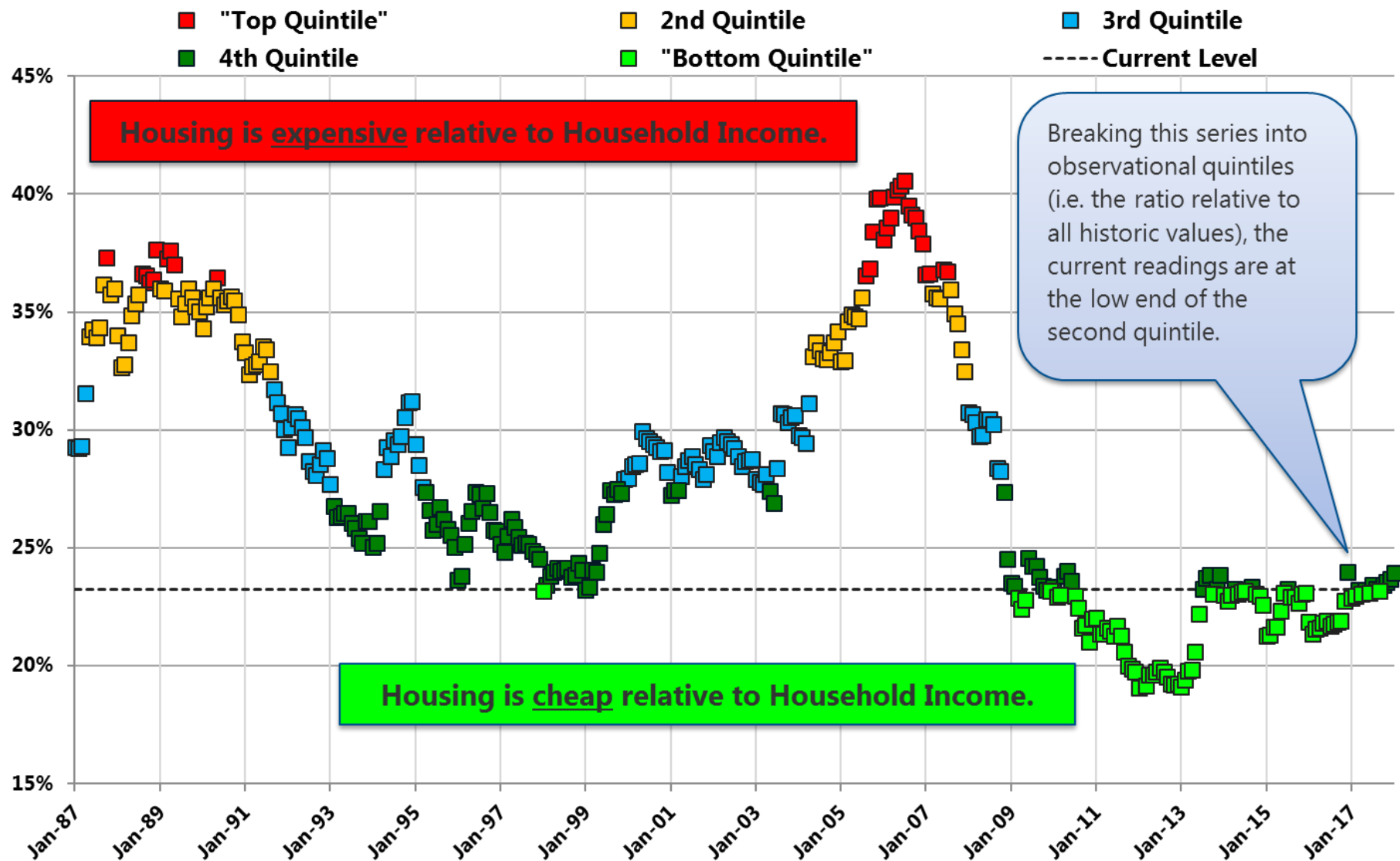
— Median Mortgage Payment as % of Median Income Current Level - - - - - Average (1987-2016)



As a percent of median income, the upside to home prices from current levels is still significant in the context of past peaks.

AFFORDABILITY DYNAMICS: MORTGAGE VS INCOME

Median Mortgage Payment as % of Median Income



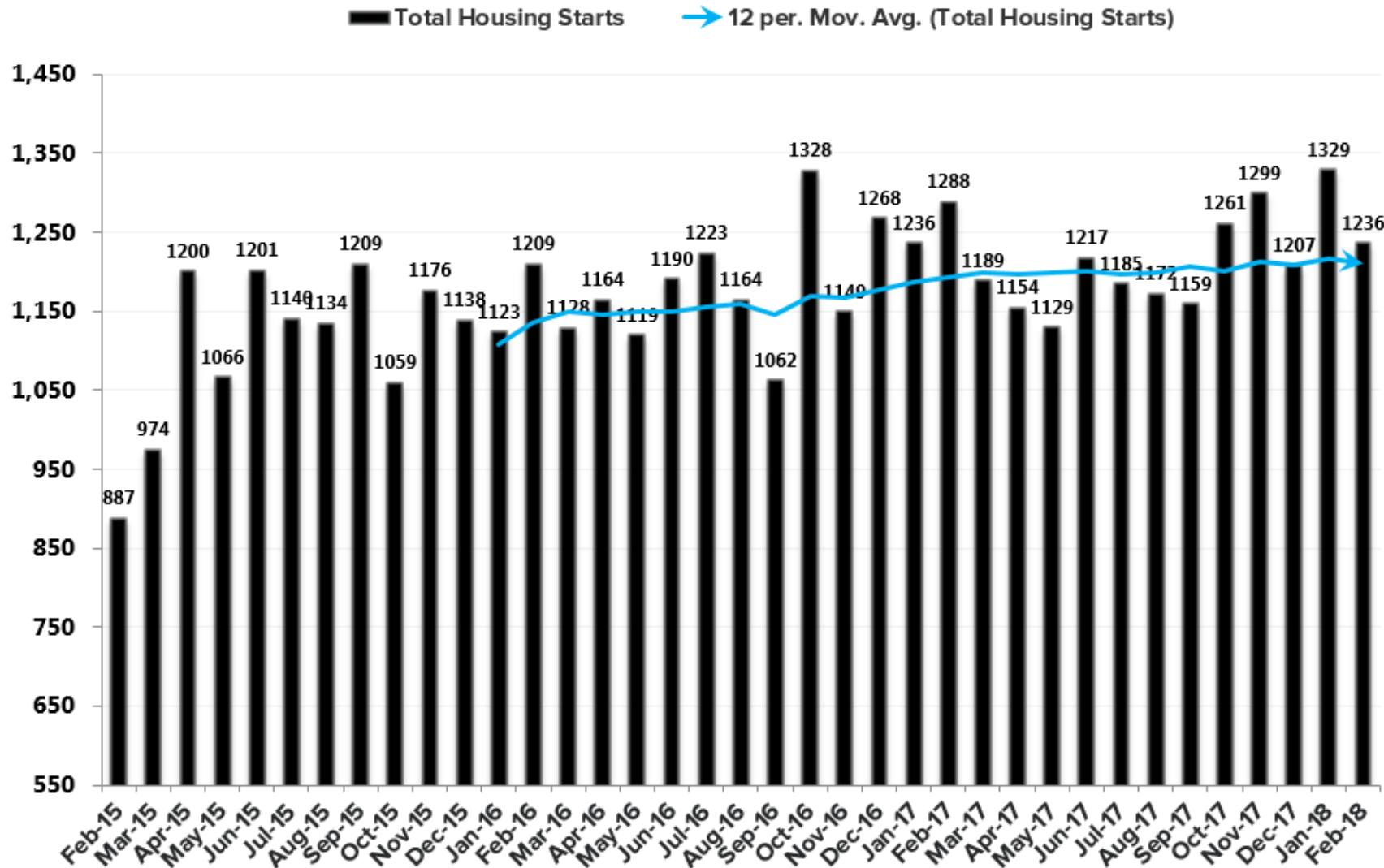
Based on the last 3 decades of data, Housing is still cheap vs national income.

The green quintile bands indicate early cycle and a go-forward tailwind for housing, while the red band signals very late cycle and an incoming correction/crash.

As we can see, the formation of data over the past few months is still in the green.

NEW CONSTRUCTION ACTIVITY HAS BEEN MIDDLING

TOTAL HOUSING STARTS

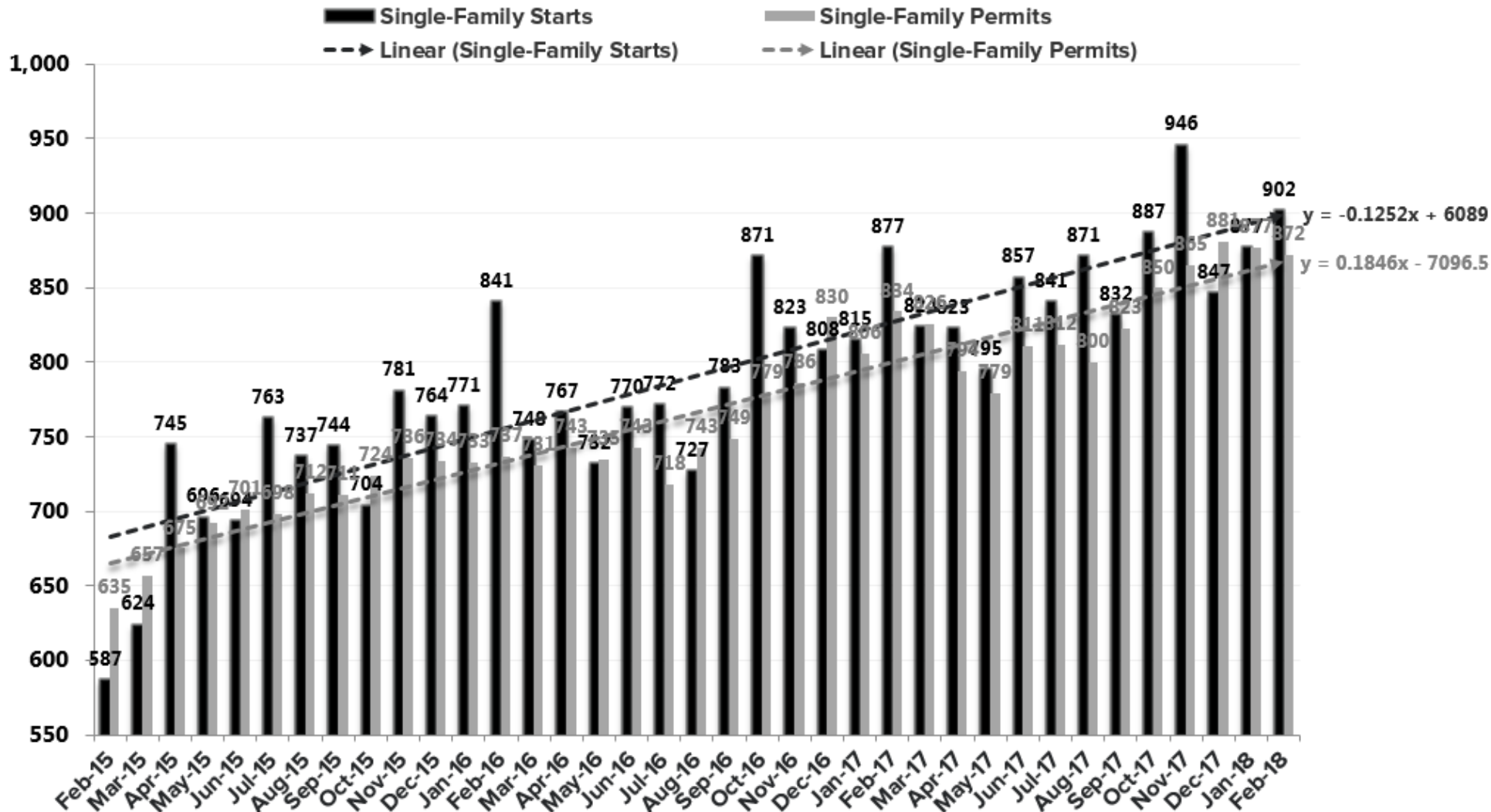


Continued improvement in SF activity and continued trend deceleration in MF activity have conspired to constrain gain in Total Housing Starts

New construction remains the primary supplier of homes to the market, and given the exhausted supply in the existing market, construction is expected to remain strong for the foreseeable future.

BUT SINGLE FAMILY STARTS CONTINUE TO IMPROVE

SINGLE FAMILY STARTS & PERMITS

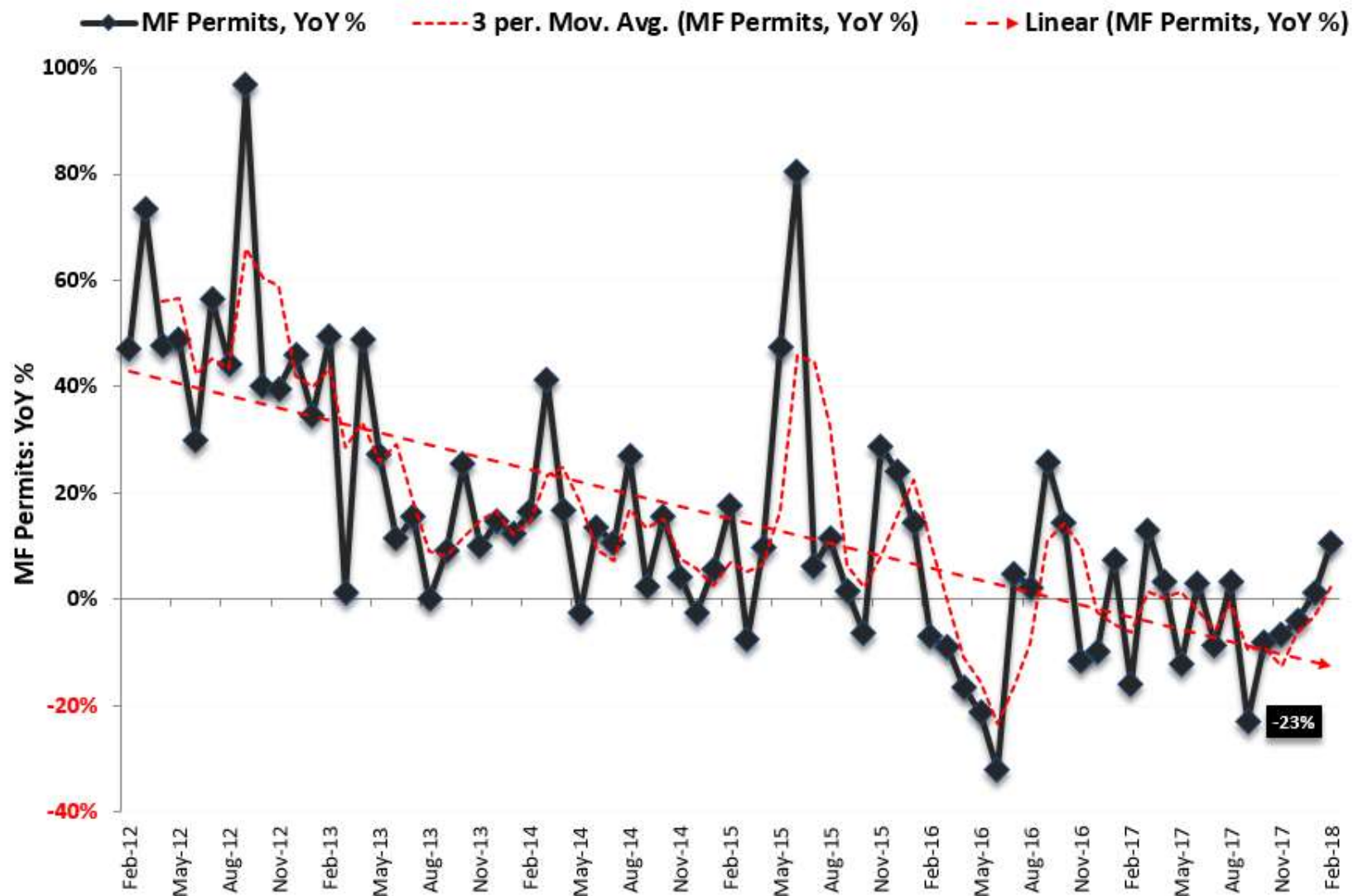


Gains in single-family construction have been moderate and choppy on a month-to-month basis but the larger trend of improvement remains clear.

There remains significant upside (approx. +60%) to prior average peak levels of activity.

MULTI-FAMILY STILL IN RETREAT

MULTI FAMILY PERMITS

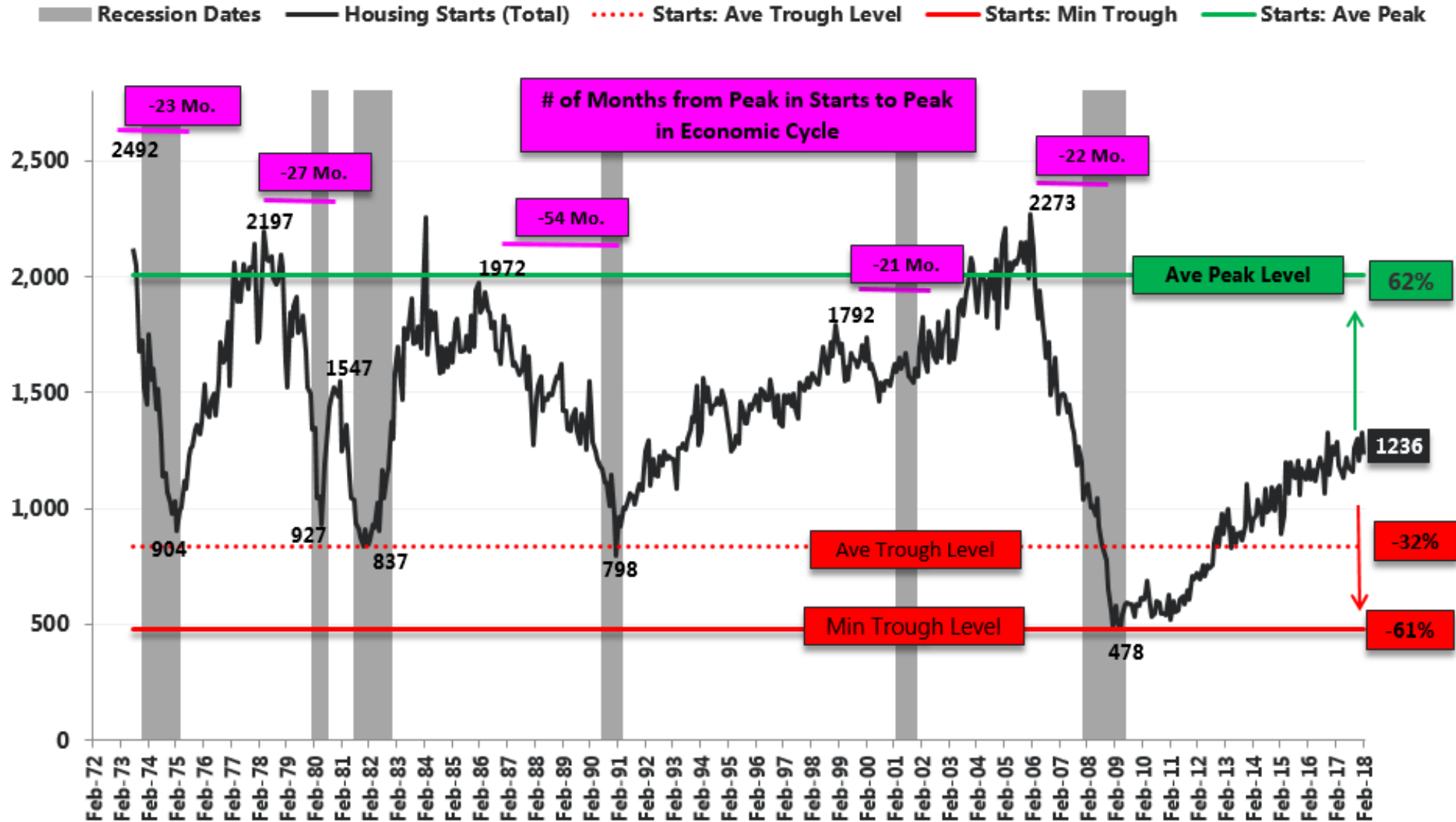


After leading the construction recovery for years out of the GFC, MF activity has slowed significantly over the last two years with permit growth trending predominately negative over the last 18 months.

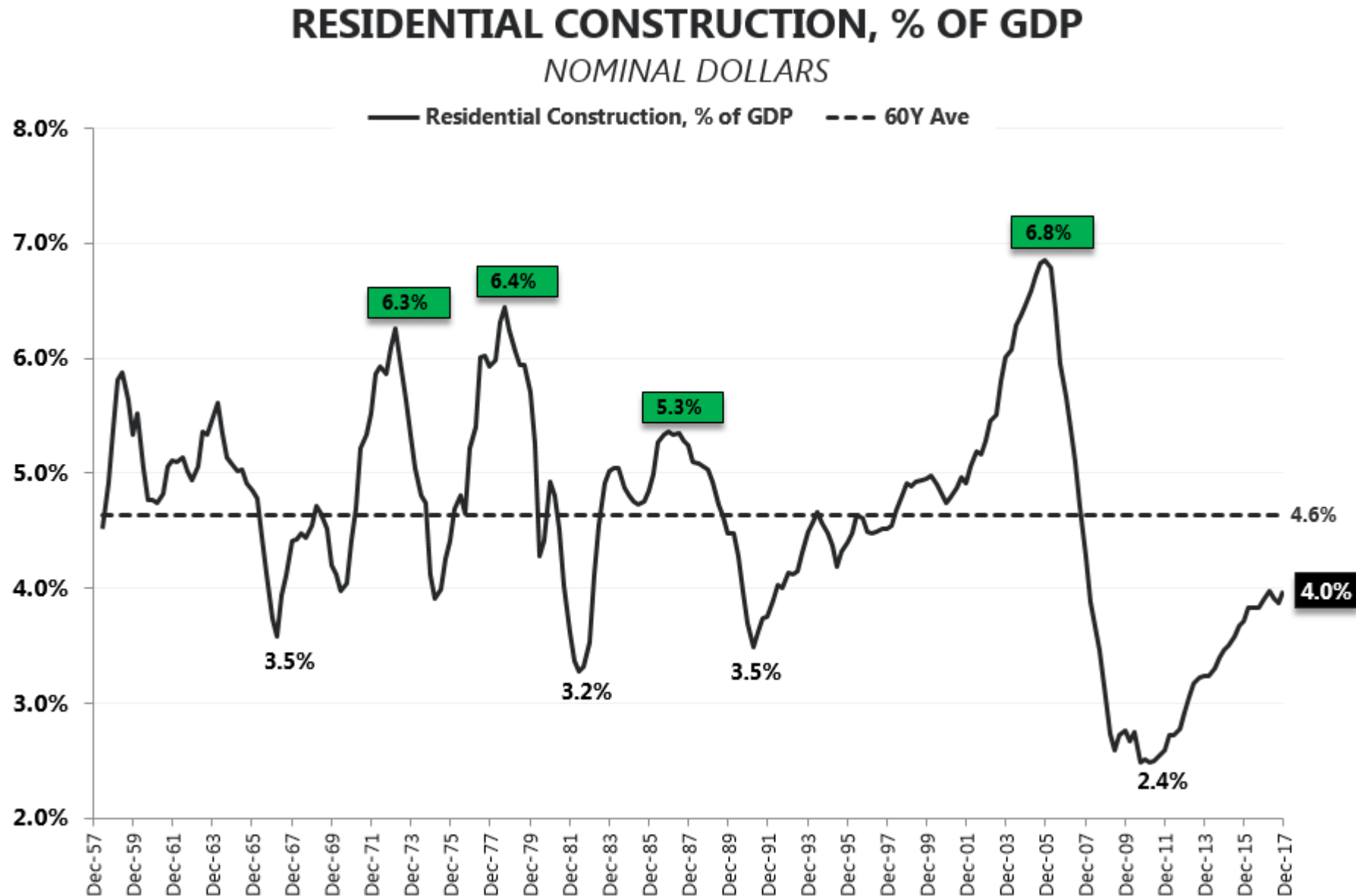
With an increase in finished supply coming online and the trough in vacancy rates now rearview, the trend in MF growth doesn't look set for a durable acceleration.

TOTAL STARTS → THE (+) LONG-TERM ASYMMETRY REMAINS

HOUSING STARTS

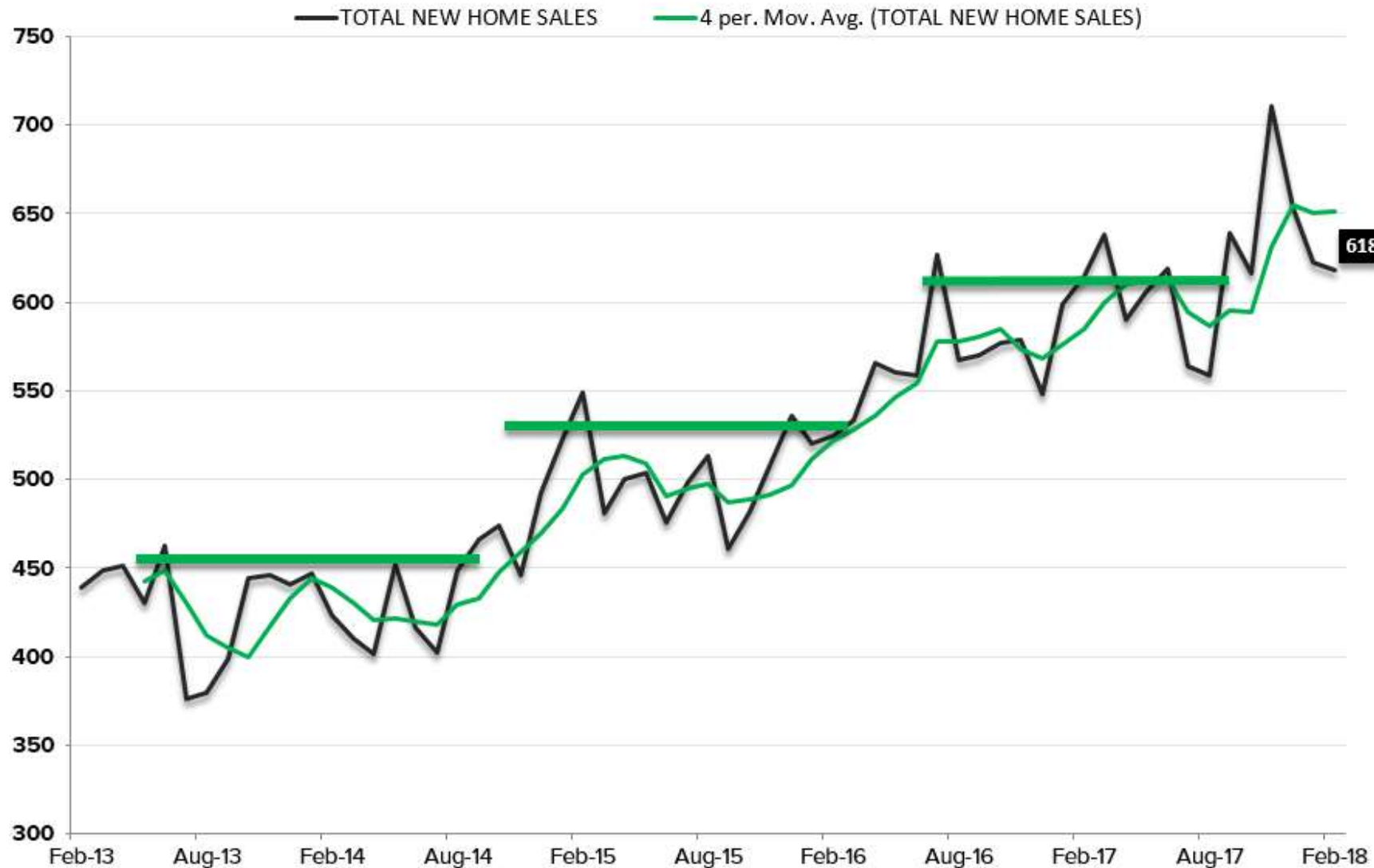


RESI CONSTRUCTION → (STILL) BARELY ABOVE TROUGH



NHS: THE STEP PATTERN OF ADVANCE REMAINS ONGOING

NEW HOME SALES

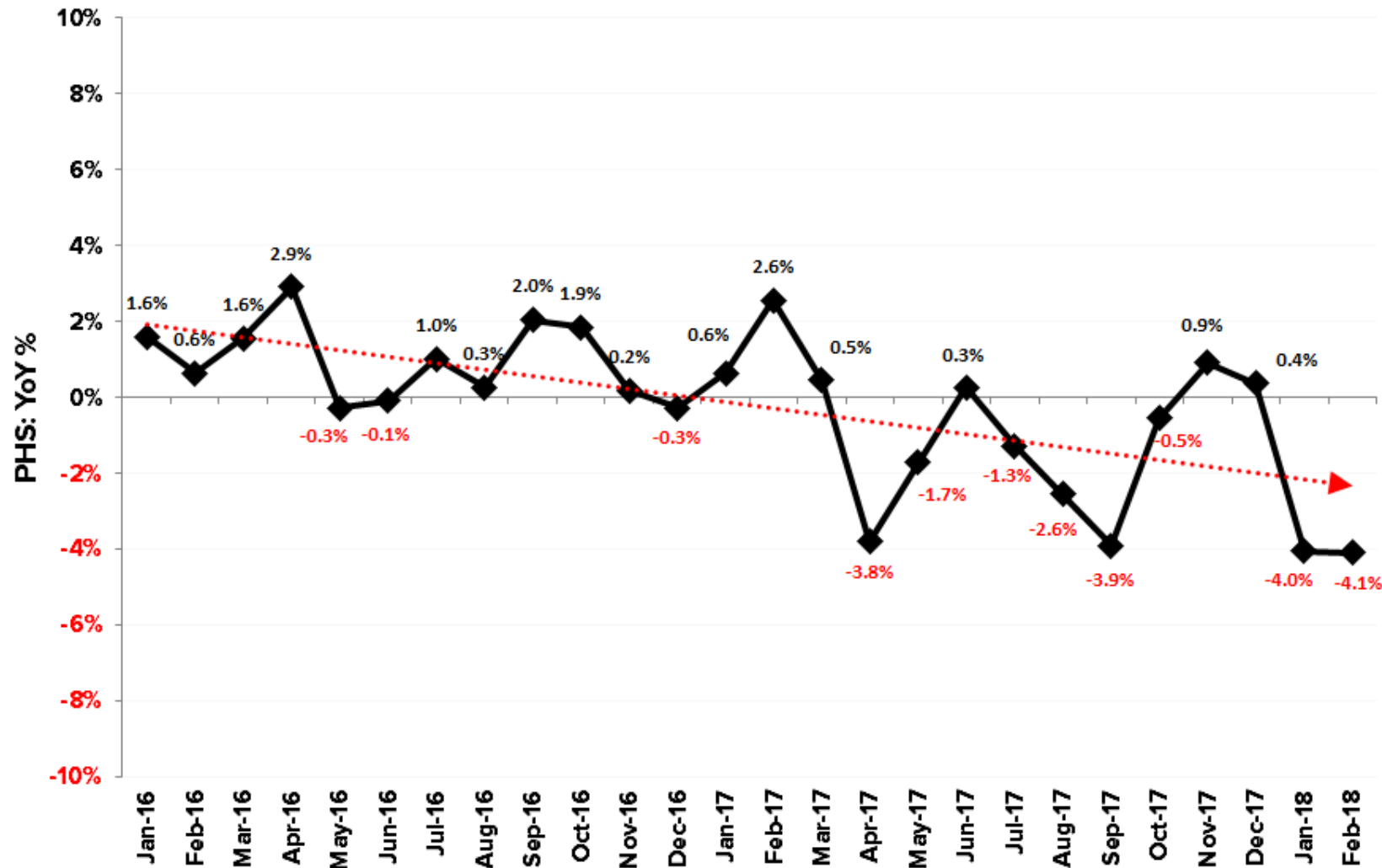


NHS gains have been choppy on a monthly basis but have shown a consistent stair-stepping pattern of improvement on a Trending basis.

Weather and Interest rate concerns acted to drag on volumes in the latest month. A cleaner read of underlying trend should emerge as both of these factors resolve out of the data over the next couple months.

MEANWHILE ... EXISTING MARKET VOLUME CONTINUES TO DECELERATE

PENDING HOME SALES

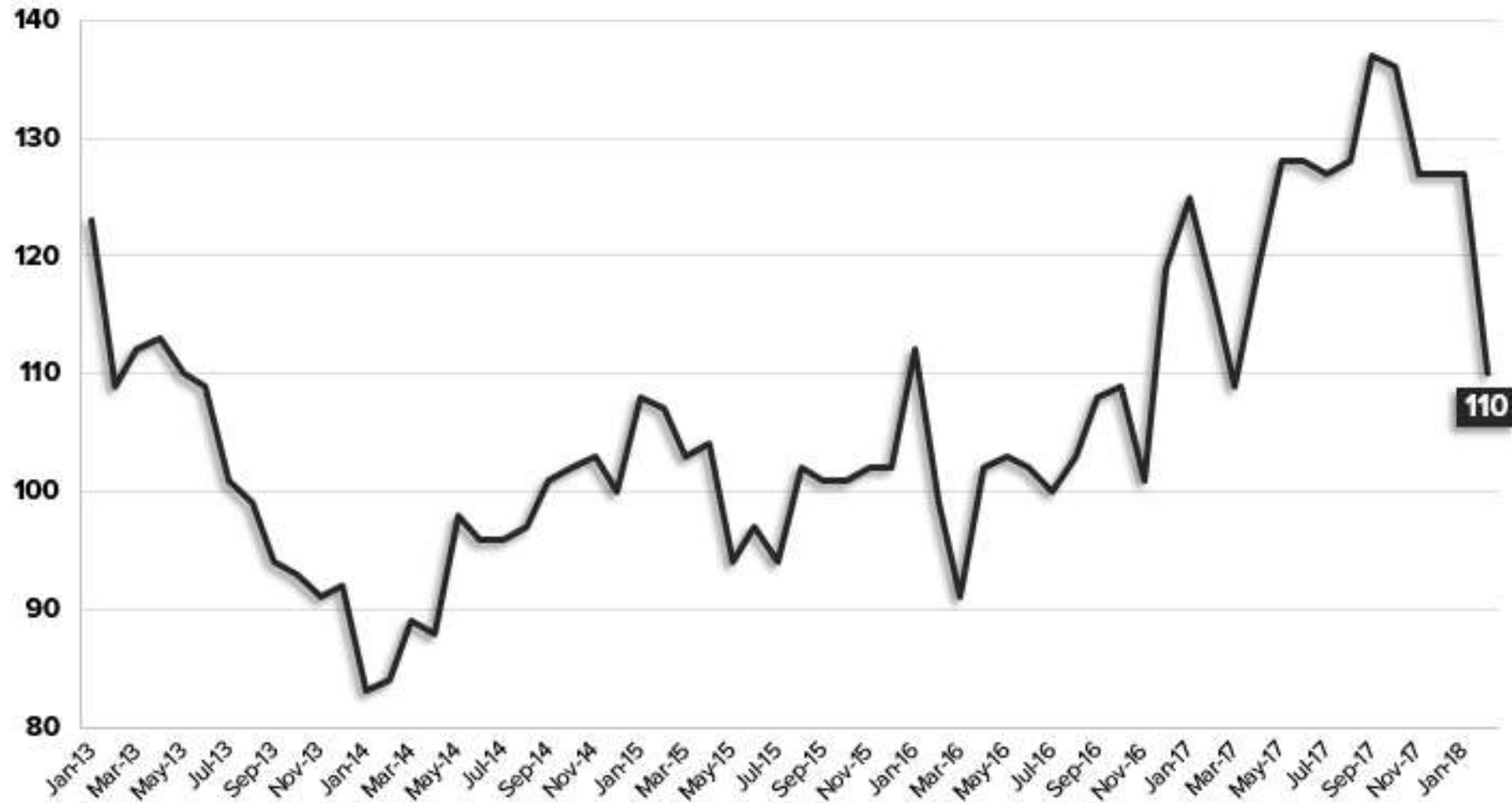


Year-over-year sales growth has been negative in 6 of the last 8 months and, in what remains one of the most underwhelming charts in domestic macro, has averaged -1.7% Y/Y over the TTM with the trend accelerating to the downside.

Existing market sales won't see any sustainable growth mojo unless Millennial demand continues to percolate and supply conditions improve.

WRITTEN CONTRACT ACTIVITY HAS PULLED BACK

RDFN Housing Demand Index



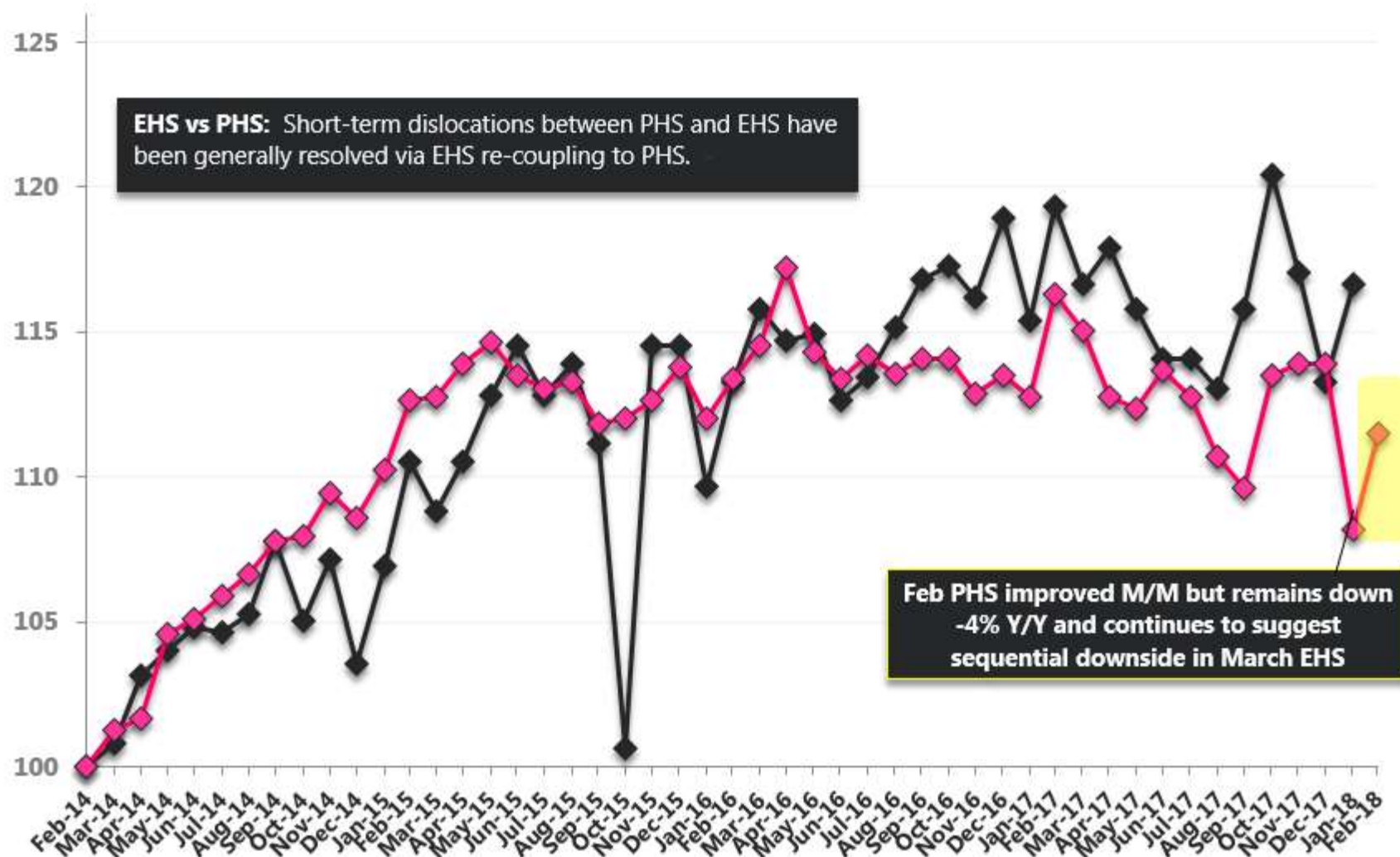
The deceleration has been a newly emergent trend that began around November 2017, when existing home sales reached 11-year highs.

The latest February updated paints a bleak 1Q18 picture

EHS: DIVERGENCE & NEAR-TERM DOWNSIDE

EXISTING HOME SALES (1-MO LAG) VS PENDING HOME SALES, SAAR GAIN SINCE FEBRUARY 2014 TROUGH

Existing Home Sales (SAAR) NAR: Pending Home Sales (Index)

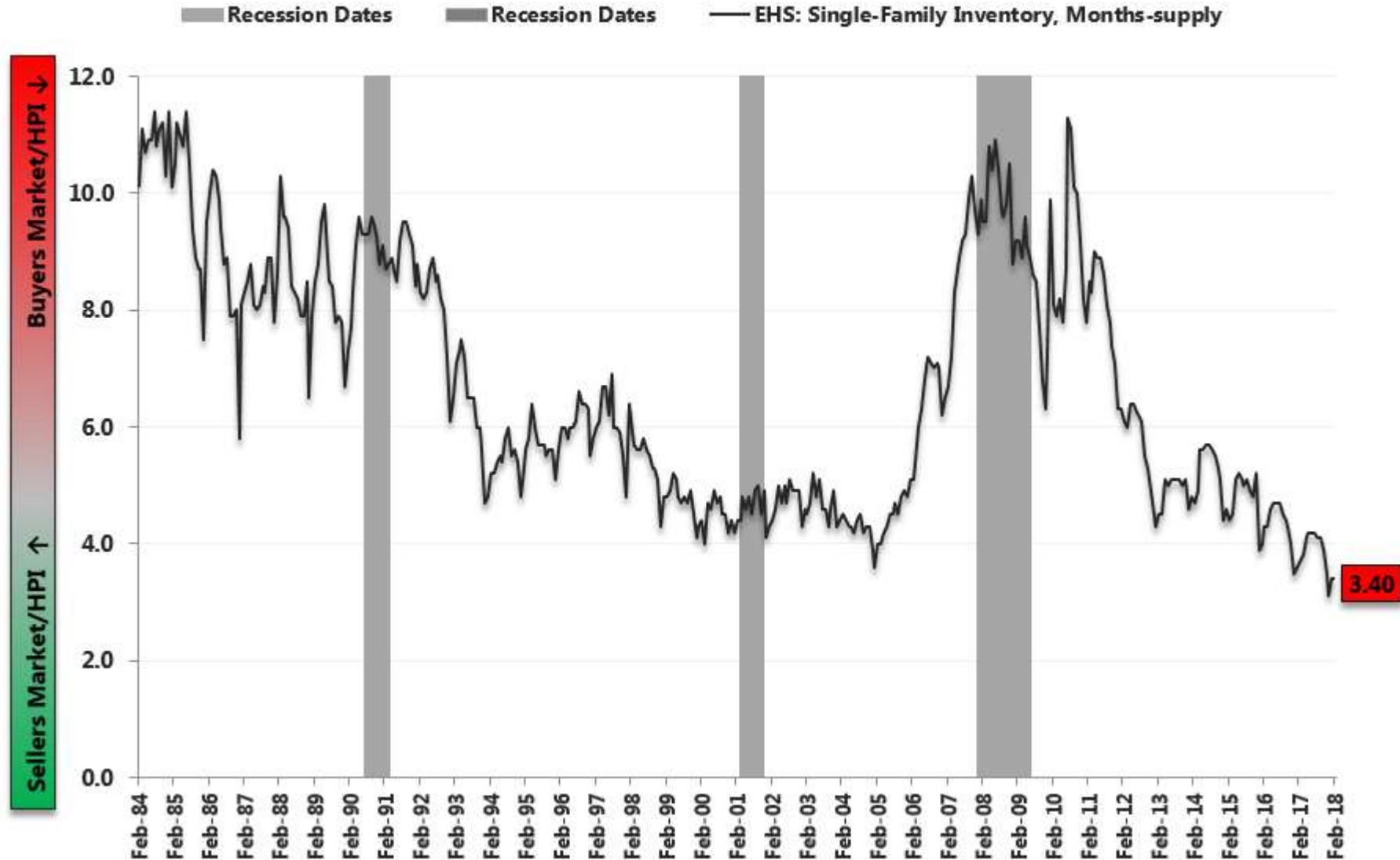


Signed contract activity naturally leads closed transaction volume and prior divergences between PHS and EHS have resolved in favor of PHS.

With the spread between PHS and EHS remain extended in February, the baseline expectation is for sequential downside in EHS over the next month(s).

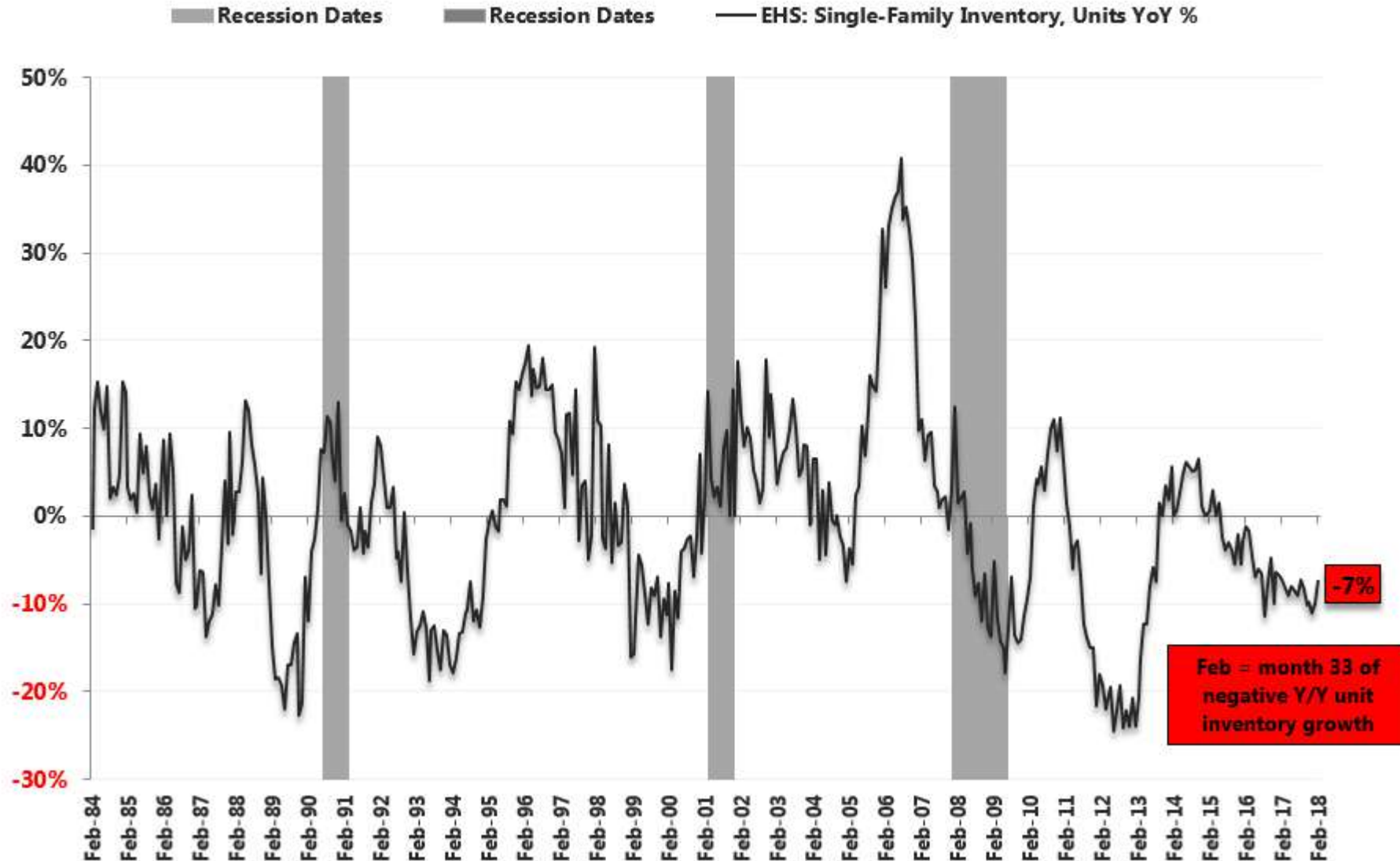
SUPPLY REMAINS THE PROTAGONIST IN THE HOUSING STORY

INVENTORY: SINGLE-FAMILY EXISTING HOMES

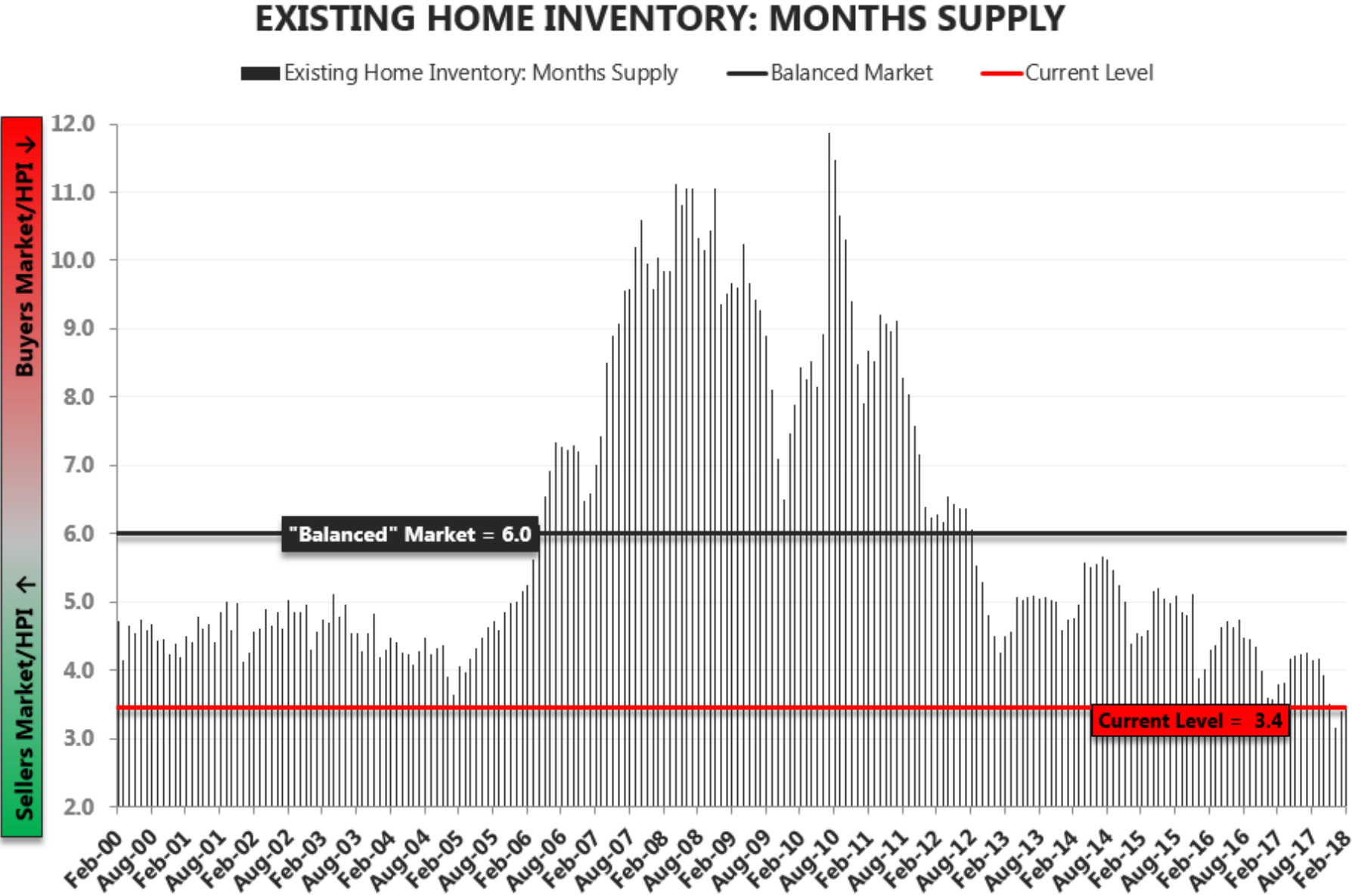


NEGATIVE UNIT SUPPLY GROWTH, MONTH 33

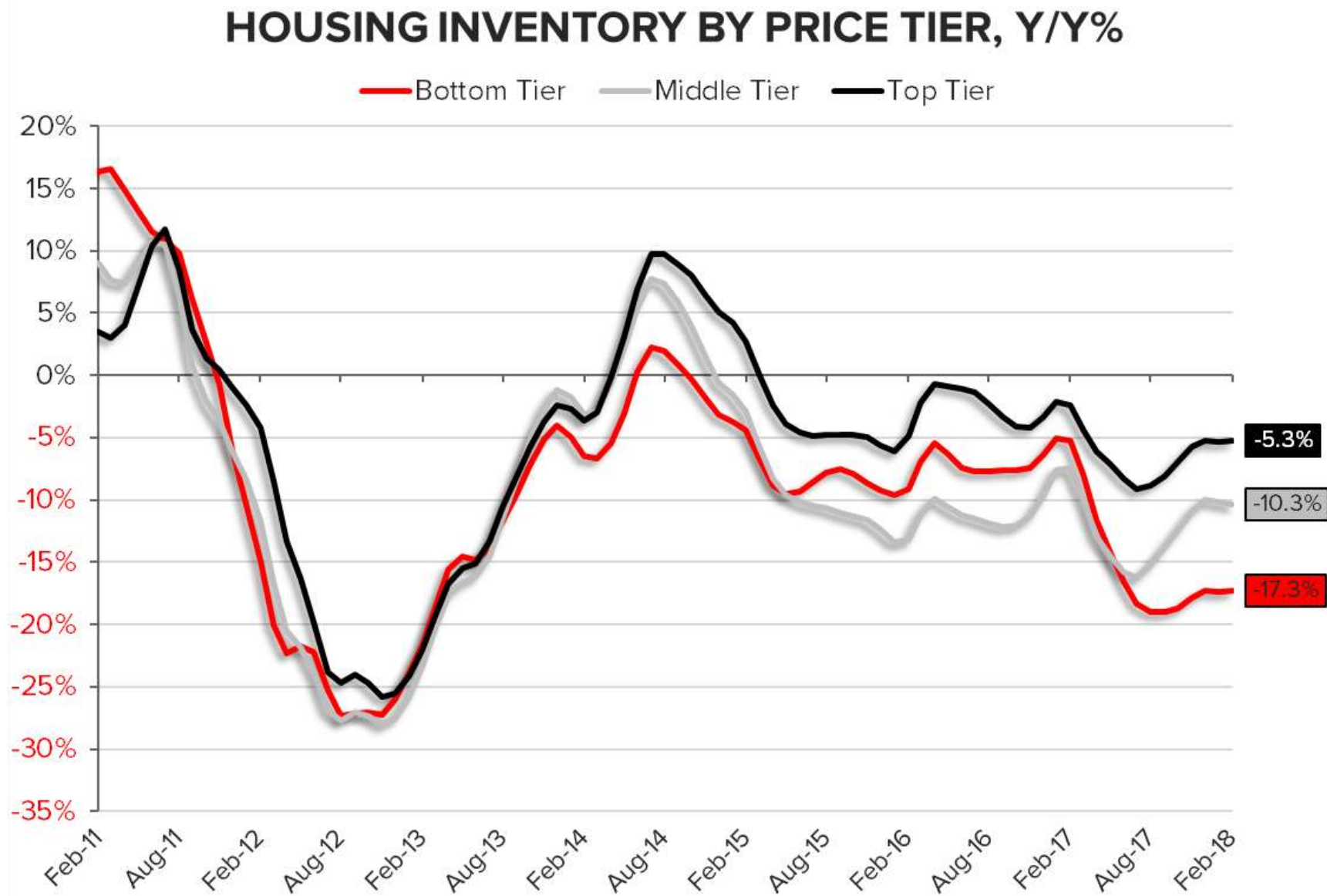
INVENTORY: SINGLE-FAMILY EXISTING HOMES



EHS MONTHS-SUPPLY = JUST NORTH OF ATL'S



LOW/MID TIER = SUPPLY SHORTAGES MOST ACUTE

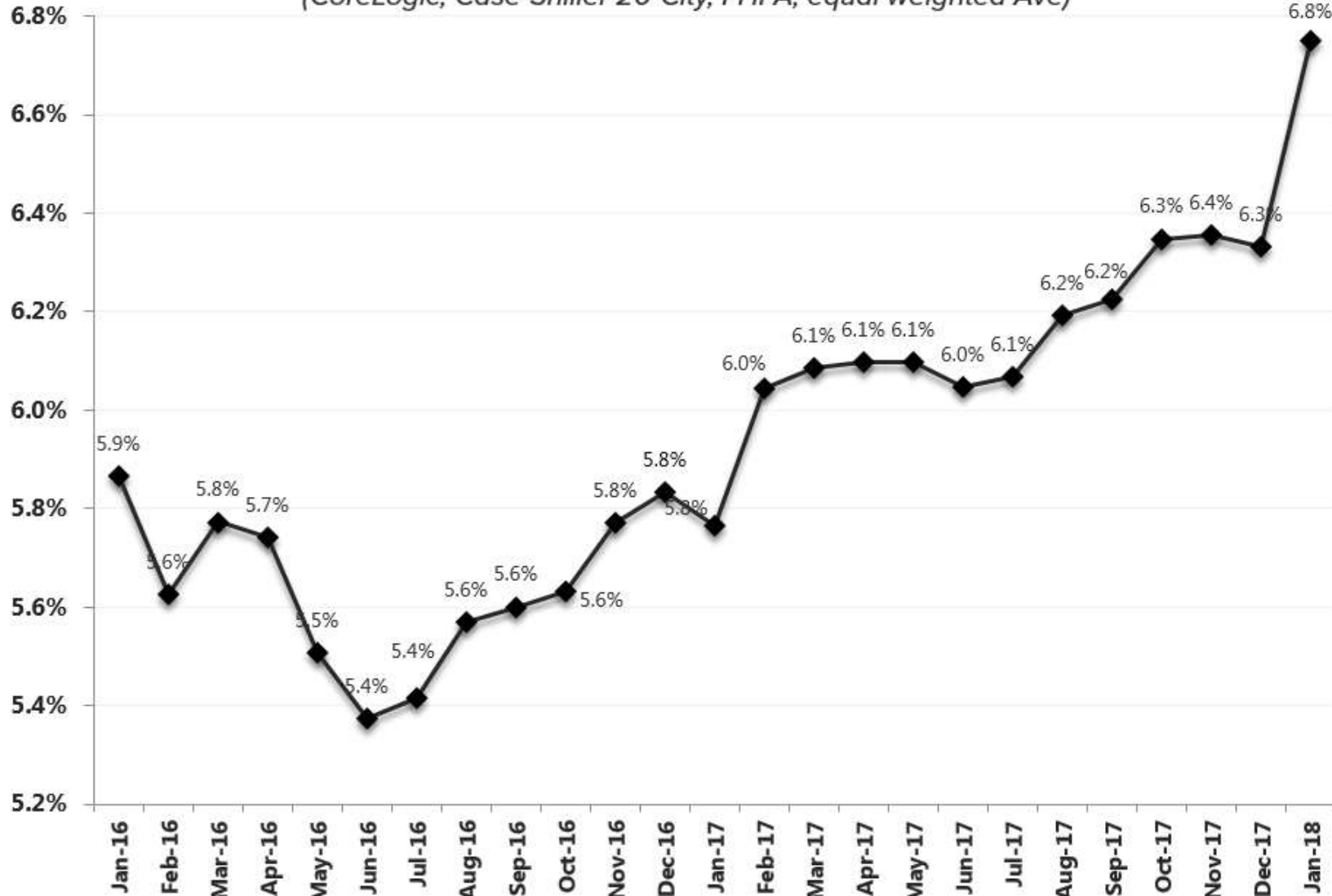


Supply remains tight (& tightening), particularly across the bottom and middle tiers.

Investor activity post-GFC (which bought distressed inventory in the low/middle tiers), the lack of affordable/desirable trade-up inventory and negative equity positions continue drag on entry level supply.

DEMAND ↑, SUPPLY ↓↓ = PRICES ↑

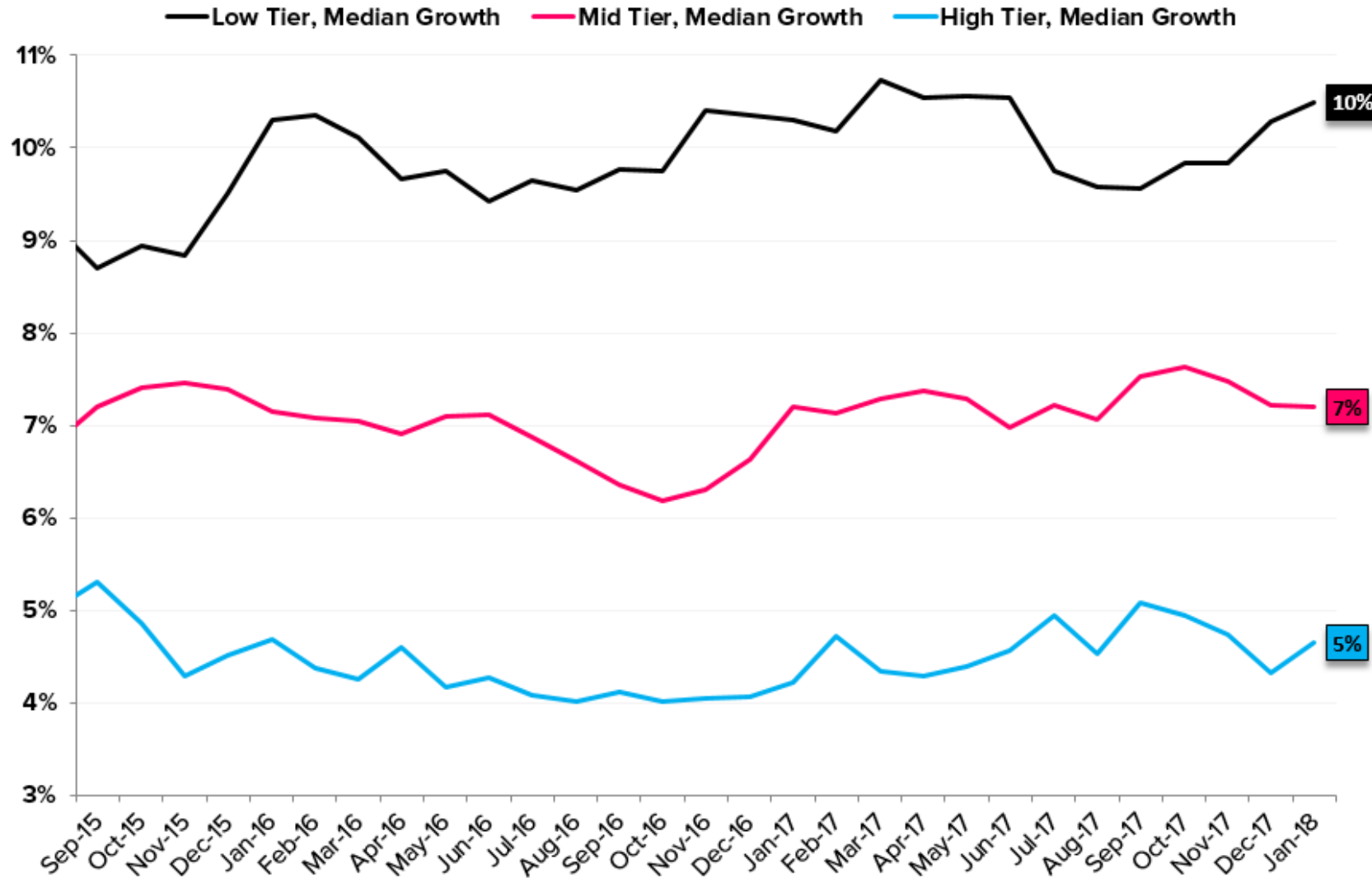
HOME PRICE GROWTH: HPI Composite, YoY %
(CoreLogic, Case-Shiller 20-City, FHFA; equal weighted Ave)



While the Case-Shiller National Series decelerated for the 1st time in 19-months in January, the 20-city series, CoreLogic HPI and FHFA all continued to accelerate. In fact, the FHFA HPI series breached 7% Y/Y to the upside for the first time this price cycle.

HPI AT THE LOW END RUNNING AT A PREMIUM SPREAD

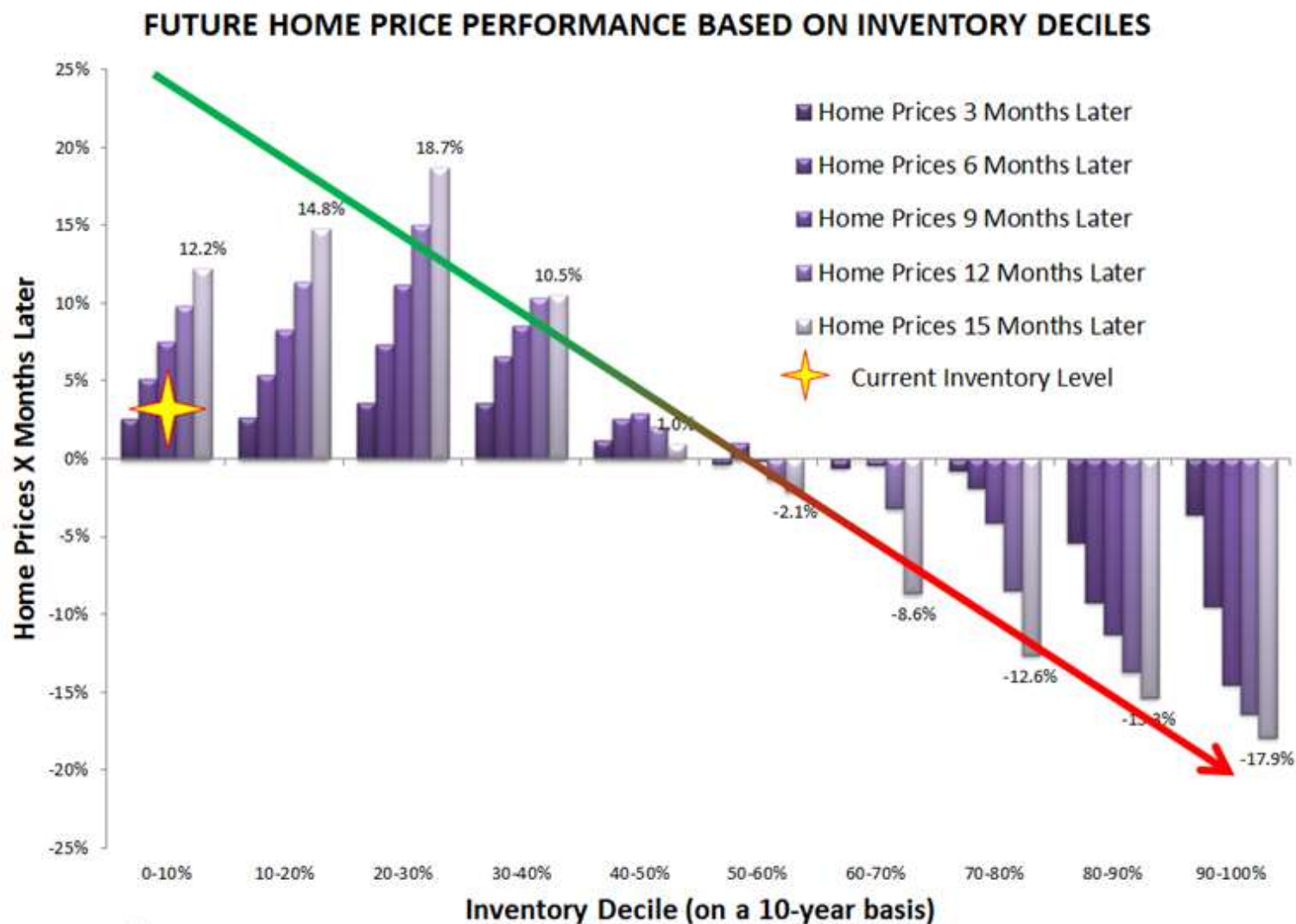
HPI By Price Tier, YoY % Chg



Unsurprisingly, price growth at the low end – where supply shortages are most acute - is running at a sizeable premium to that in the middle and higher tiers.



MY (HPI) PREDICTION? PAIN



We've previously analyzed the forward predictive power of inventory levels on NTM home prices. When inventory levels fall in the bottom decile of the historical range, as they are now, home prices have tended to rise at double digit rates or roughly double the current 6%.

The logo features the word "ESPN" in red and the number "118" in silver, all in a bold, blocky font. The background is a blue gradient with a bright sunburst effect emanating from behind the text.

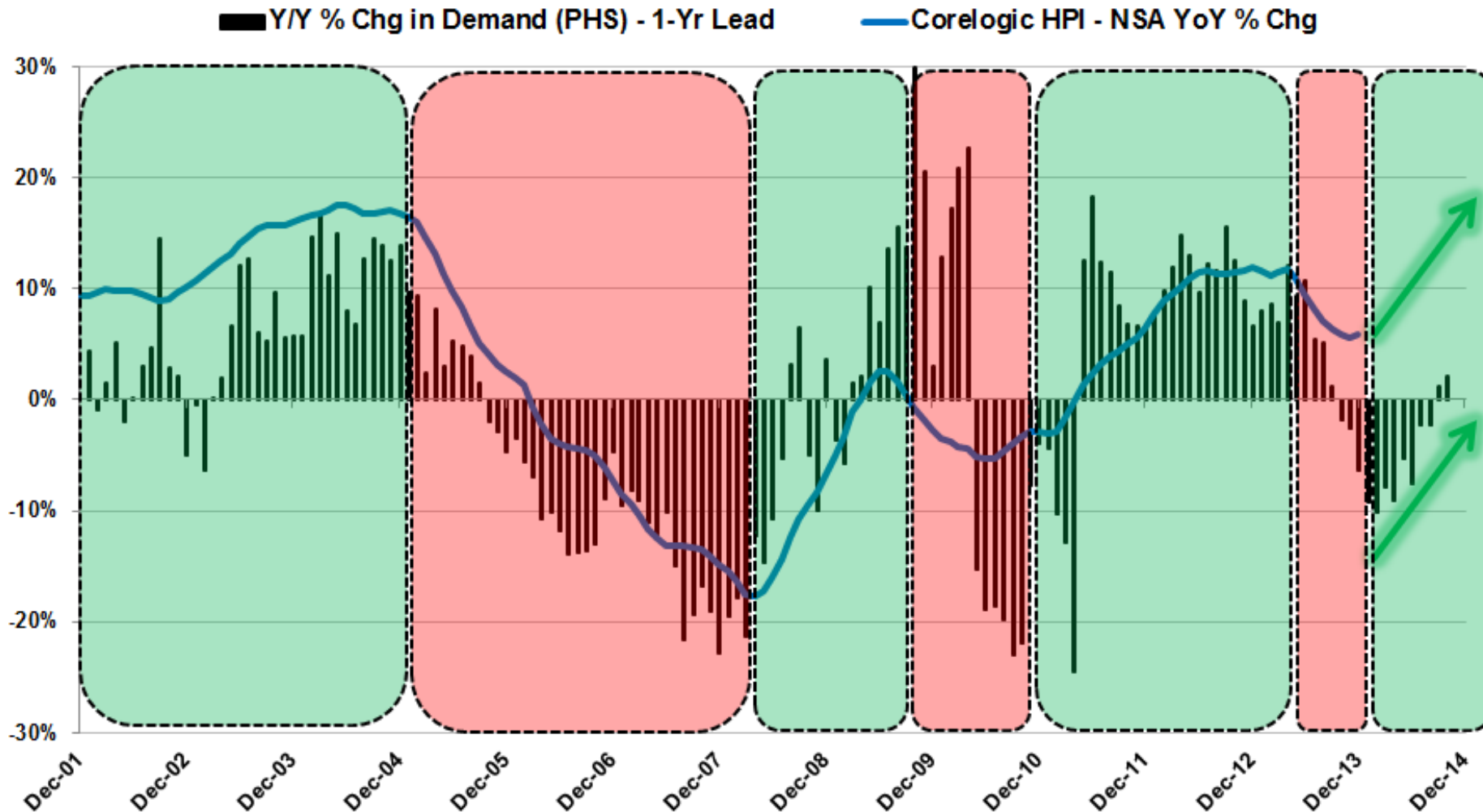
ESPN 118

"THE OCHO"

THE OCHO

THE LEGACY MODEL: DEMAND → PRICE → EQUITIES

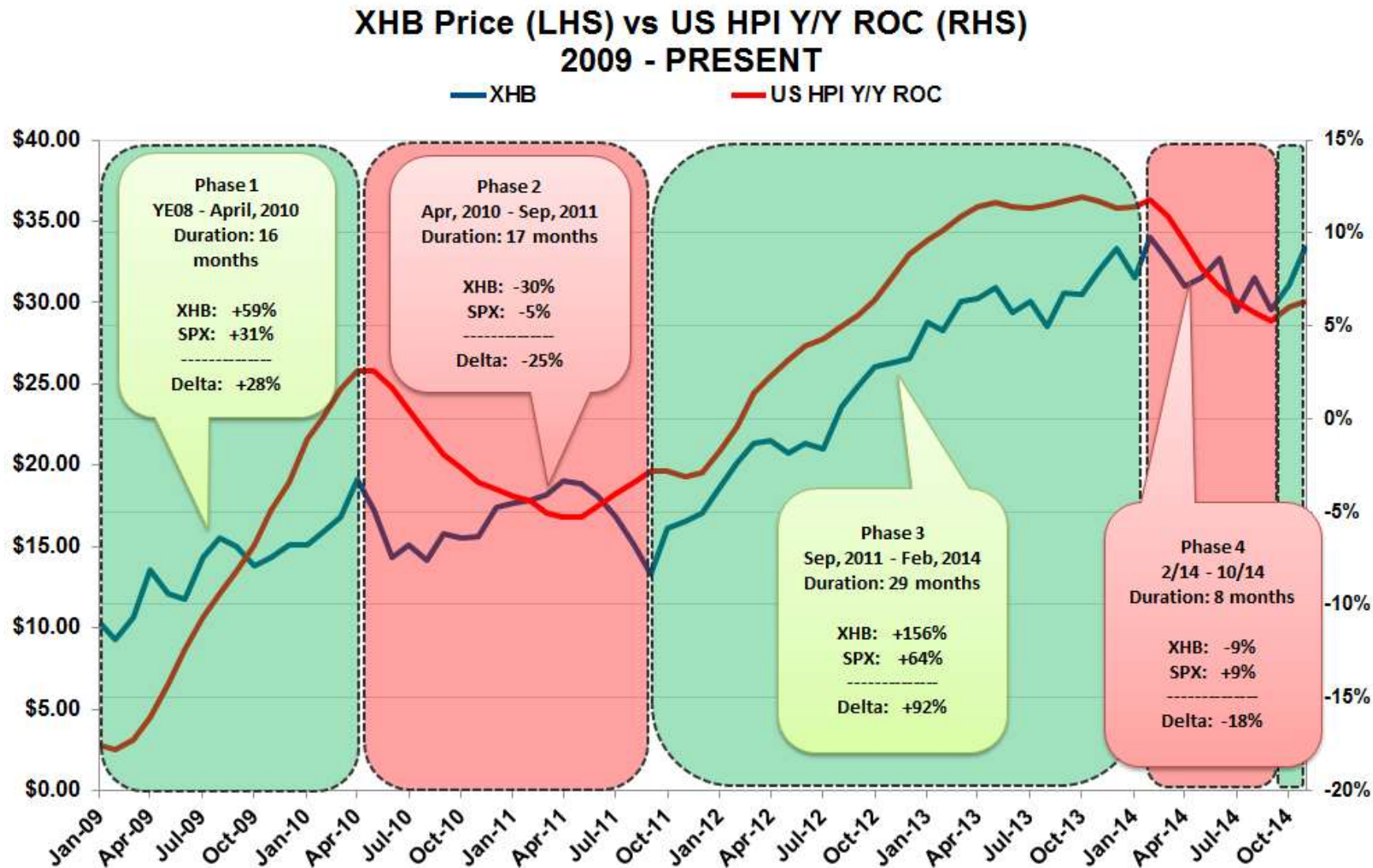
DEMAND GROWTH LEADS PRICE GROWTH BY ~ ONE YEAR



For the fifteen years ending in 2015, demand growth had led price growth by around a year.

This relationship began to breakdown as home sales mean reverted back above average historical levels of activity and all-time low supply conditions became the primary factor gating changes in volume.

POST GFC CASE STUDY: PRICE → EQUITY PERFORMANCE



Housing stocks have reflected the path of the rate of change in home prices since 2008. The R-value between these two series has been +0.90.

In other words, the legacy model used demand growth to predict home prices a year from now. And because stock performance was tethered to the RoC in HPI we had a good window into the forward outlook for housing related equities.

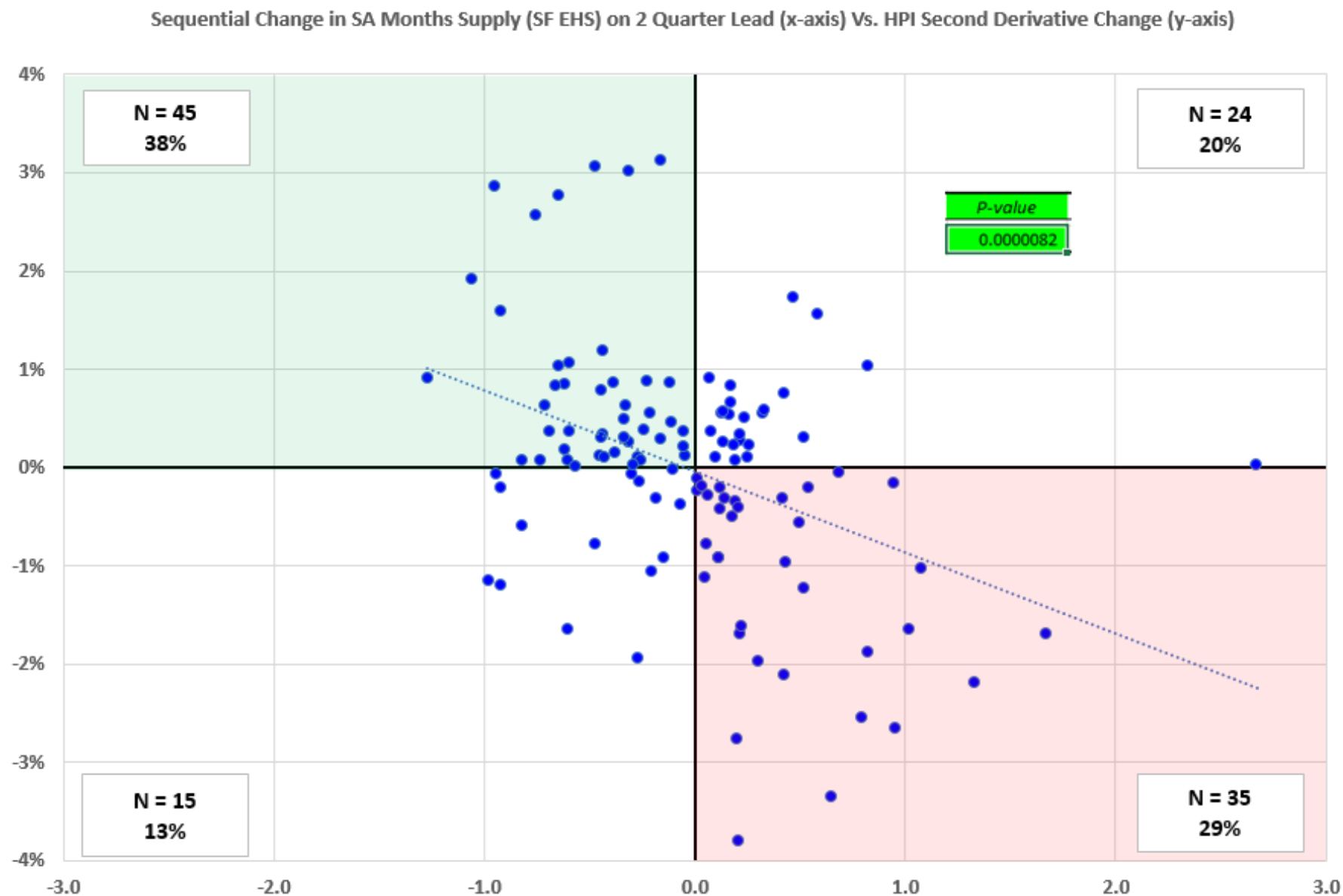
THE OCHO: ITERATING THE MOUSE TRAP

THE OCHO								
Average Historical Performance by Octant, Q/Q %								
Exposure	I	II	III	IV	V	VI	VII	VIII
HPI	↑	↑	↑	↑	↓	↓	↓	↓
Volume	↑	↑	↓	↓	↑	↑	↓	↓
Months-Supply	↑	↓	↓	↑	↑	↓	↓	↑
10Y Treasury Yield	0.1%	-0.2%	0.0%	0.1%	0.0%	-0.1%	-0.3%	-0.1%
S5Home Index	3.0%	9.6%	1.5%	2.3%	-3.7%	7.7%	-3.7%	-5.9%
S15Home Index	4.6%	6.8%	-2.6%	7.9%	3.4%	7.7%	-2.4%	-6.4%
S5HOMI Index	5.3%	4.4%	6.8%	5.5%	1.8%	12.0%	1.8%	0.5%
ITB	4.4%	7.3%	3.1%	9.9%	3.4%	2.3%	-12.1%	-11.9%
XHB	5.3%	5.7%	1.7%	7.3%	3.1%	3.6%	-11.5%	-9.6%

As the utility of the legacy model diminished alongside prevailing supply conditions and large-scale swings in macro-driven housing fundamentals have progressively diminished as we've moved further out from the GFC, we've worked to evolve our top down model.

“The Ocho” – our model in evolution – utilizes an octant framework to map prevailing conditions across principal housing fundamentals to industry level equity performance.

MONTHS-SUPPLY → HPI

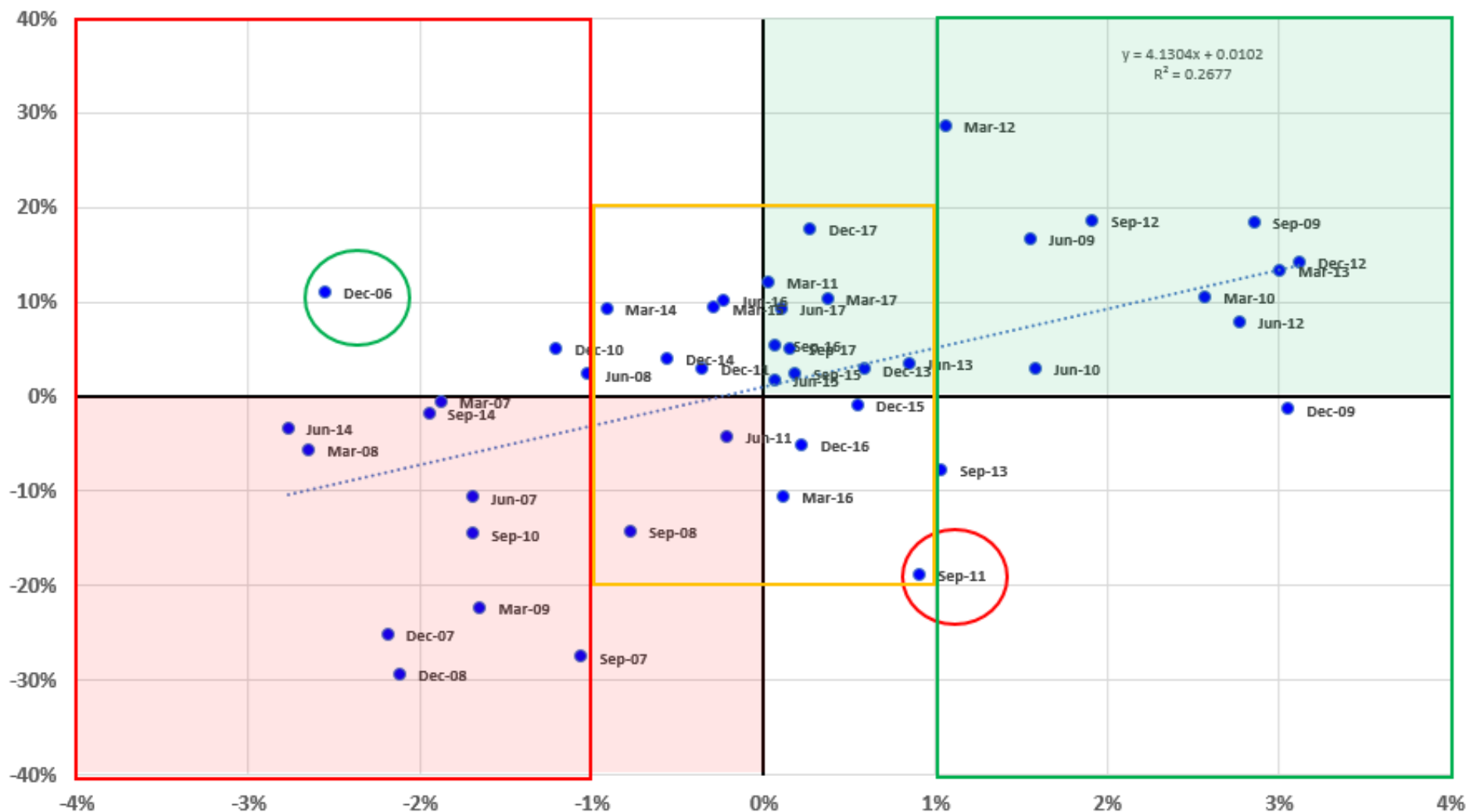


The sequential change in months-supply is a good predictor of acceleration/deceleration in home price growth.

Here, we're less concerned with the fit/RSQ than we are with the ability to predict the directional change in HPI growth.

HPI → EQUITY PERFORMANCE

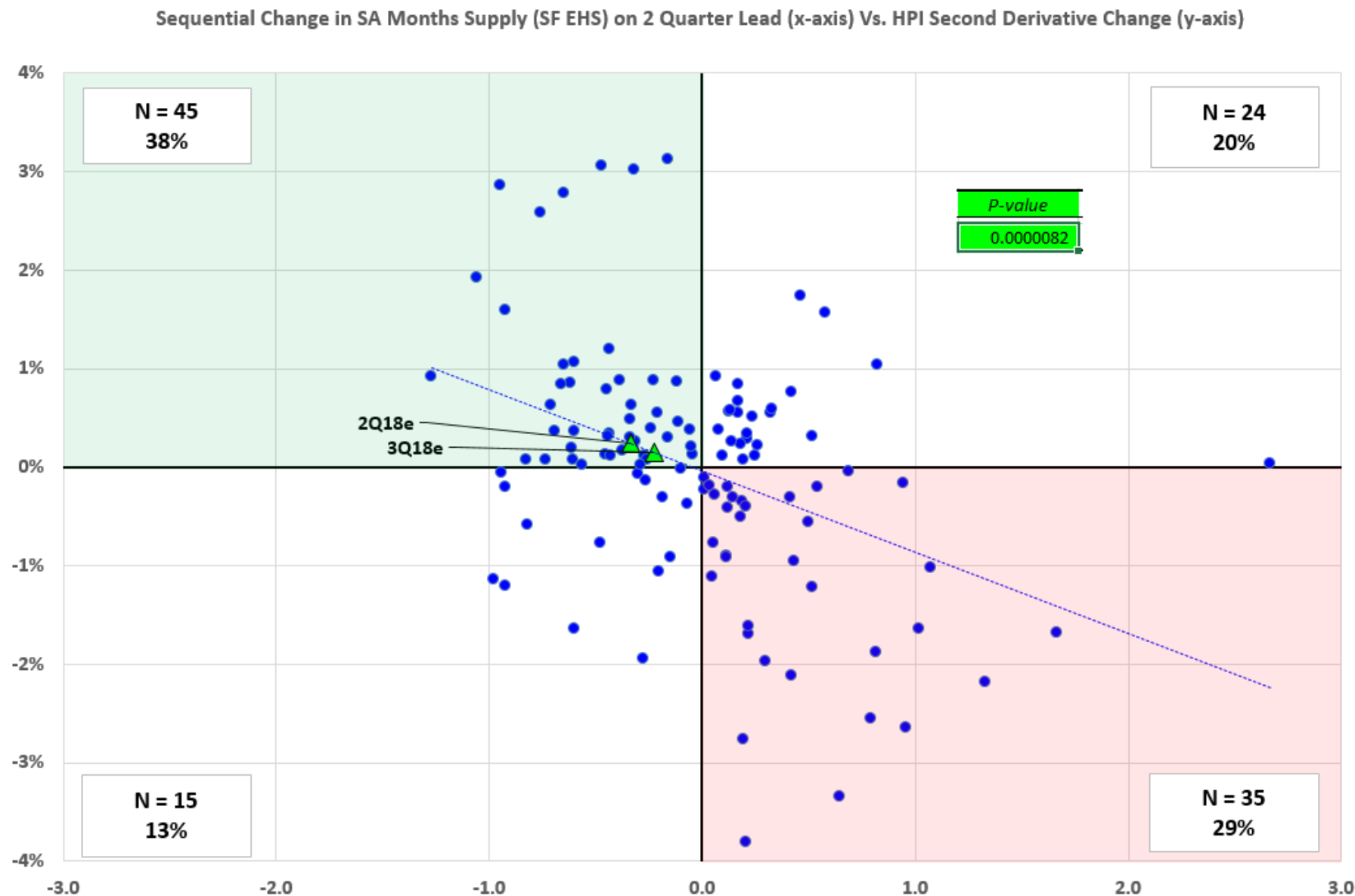
HPI Second Derivative Change (x-axis) Vs. ITB Quarterly Performance (y-axis)



The 2nd derivative change in price remains a strong predictor of housing related equity performance.

Historically, the relationship is strong and, importantly, the probability of outlier moves is small.

MONTHS-SUPPLY → HPI



Based on the 4Q17 and 1Q18 SA SF EHS months supply trends we find that the most probable path for 2Q18 and 3Q18 HPI second derivative is positive, albeit modestly.



RATES & AFFORDABILITY

RATES: TO INFINITY & BEYOND (AGAIN)?

Primary Mortgage Market Survey®

U.S. weekly averages as of 04/05/2018

30-Yr FRM

4.4%

▼ 0.04 1-Wk
▲ 0.30 1-Yr

0.5 Fees/Points

15-Yr FRM

3.87%

▼ 0.03 1-Wk
▲ 0.51 1-Yr

0.4 Fees/Points

5/1-Yr ARM

3.62%

▼ 0.04 1-Wk
▲ 0.43 1-Yr

0.4 Fees/Points



Rates looked poised to continue blasting off through February, but more recently are showing signs of rolling over.

The extant reality that rates rising (too high/too fast) remains the primary catalyst for rates falling makes it difficult to tactically risk manage exposure during concentrated clustering of rate volatility.

THREE CASE STUDIES IN RISING RATES

1

OCTOBER 1993- DECEMBER 1994

Mortgage Rates rose +240 bps over the span of 14-months. The S&P 500 Homebuilding index lost 33% of its value over that 14 month span. By contrast, the S&P 500 was flat over the corresponding period.

2

OCTOBER 1998 - MAY 2000

Mortgage Rates rose +180 bps over the span of 19-months. The S&P 500 Homebuilding index lost 29% of its value over that 14 month span, but the S&P 500 was up 44% making the relative underperformance a whopping 73%.

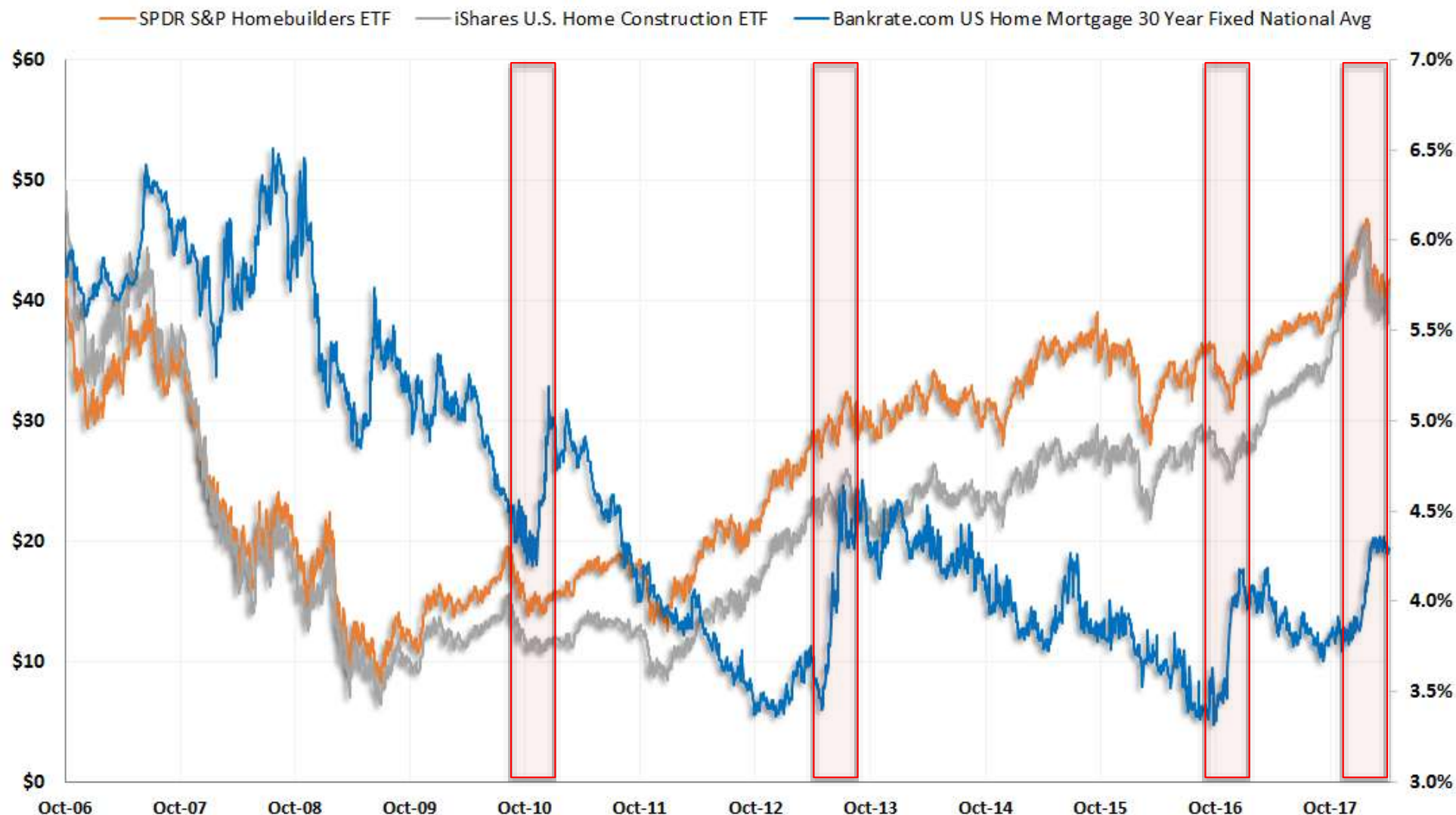
3

DECEMBER 2012 – SEPTEMBER 2013

Mortgage Rates rose +120 bps over the span of 10-months. The S&P 500 Homebuilding index lost 3% of its value over that 14 month span. By contrast, the S&P 500 was up 19% over the corresponding period so the relative underperformance was 22%.

HOME BUILDING STOCKS VS. MORTGAGE RATES

Home Builder Rate Sensitivity

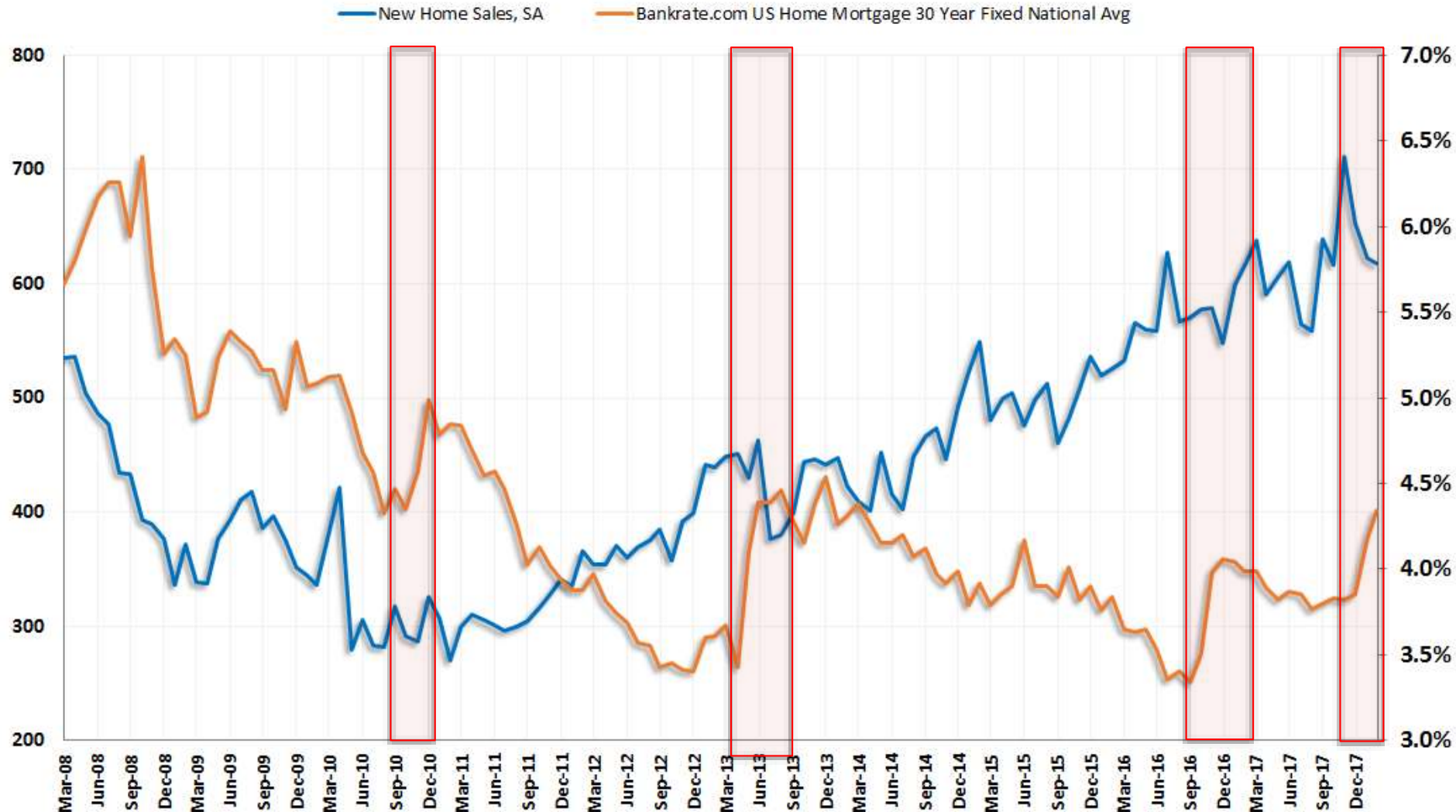


Home Building stocks have historically trended down in the immediate term following a shift up in mortgage rates.

Longer term though, stock downturns would correct themselves with better market data.

NEW HOME SALES VARIABLY SENSITIVE

Home Buyers Long Term Rate Sensitivity



Homebuyers in the new construction market are relatively sensitive in the immediate term to rate changes, with some exception where fundamentals drove demand.

Like in the stocks, unit volume of new homes moves on from the mortgage rate shocks within only a handful of months.

WHY RATES MATTER TO HOUSING INVESTORS

LTM Correlation to the 10-Year Treasury Yield

	Avg R Value	Std Dev		Median R Value	Std Dev
1 Large Cap Banks	0.73	0.09	Large Cap Banks	0.74	0.09
2 Midcap Banks	0.72	0.08	I-Banks/Boutiques	0.74	0.11
3 I-Banks/Boutiques	0.71	0.11	Midcap Banks	0.71	0.08
4 Small Cap Banks	0.65	0.16	Small Cap Banks	0.70	0.16
5 Mortgage Insurers	0.61	0.12	Financial Guaranty	0.68	0.54
6 Reinsurers	0.56	0.26	E-Brokers	0.61	0.39
7 Life Insurers	0.52	0.29	Reinsurers	0.61	0.26
8 E-Brokers	0.46	0.39	Mortgage Insurers	0.61	0.12
9 Financial Guaranty	0.41	0.54	Life Insurers	0.57	0.29
10 Auto Insurers	0.37	0.19	Mortgage Finance	0.45	0.35
11 P&C Insurers	0.35	0.34	P&C Insurers	0.45	0.34
12 Mortgage Finance	0.33	0.35	Debt Collectors	0.43	0.47
13 Consumer Finance	0.31	0.38	Consumer Finance	0.41	0.38
14 Debt Collectors	0.29	0.47	Auto Insurers	0.40	0.19
15 CRE Brokers	0.23	0.40	Exchanges	0.30	0.30
16 Exchanges	0.21	0.30	CRE Brokers	0.23	0.40
17 RE Services	0.17	0.50	Traditional AMs	0.20	0.35
18 Traditional AMs	0.13	0.35	Alternative AMs	0.17	0.40
19 Cards/Payments	0.13	0.35	RE Services	0.17	0.50
20 Insurance Brokers	0.12	0.24	Cards/Payments	0.06	0.35
21 Alternative AMs	0.09	0.40	Homebuilders	0.03	0.42
22 Homebuilders	0.05	0.42	Insurance Brokers	0.03	0.24
23 Building Products	(0.06)	0.22	Building Products	(0.01)	0.22
24 Fin Tech	(0.07)	0.42	SF REITs	(0.08)	0.06
25 SF REITs	(0.11)	0.06	Fin Services	(0.09)	0.28
26 Fin Services	(0.12)	0.28	Fin Tech	(0.15)	0.42
27 Home Centers	(0.21)	0.29	Home Centers	(0.21)	0.29
28 Apartment REITs	(0.24)	0.19	Apartment REITs	(0.26)	0.19
29 Title Insurers	(0.33)	0.31	Title Insurers	(0.49)	0.31

Mortgage Insurers	
Ticker	R Value
MTG	0.74
RDN	0.64
NMIH	0.57
ESNT	0.47
Average	0.61
Median	0.61
Std Dev	0.12

RE Services	
Ticker	R Value
RMAX	0.52
RLGY	(0.19)
Average	0.17
Median	0.17
Std Dev	0.50

Homebuilders	
Ticker	R Value
HOV	0.63
BZH	0.60
TOL	0.51
TMHC	0.40
WLH	0.31
MDC	0.27
KBH	0.03
MTH	(0.12)
SPF	(0.32)
LEN	(0.36)
PHM	(0.37)
NVR	(0.38)
DHI	(0.55)
Average	0.05
Median	0.03
Std Dev	0.42

Apartment REITs	
Ticker	R Value
PPS	0.11
ESS	(0.06)
EQR	(0.19)
AIV	(0.20)
UDR	(0.32)
AVB	(0.37)
MAA	(0.41)
CPT	(0.45)
Average	(0.24)
Median	(0.26)
Std Dev	0.19

Home Centers	
Ticker	R Value
HD	(0.01)
LOW	(0.42)
Average	(0.21)
Median	(0.21)
Std Dev	0.29

SF REITs	
Ticker	R Value
AMH	(0.07)
SBY	(0.08)
SWAY	(0.17)
Average	(0.11)
Median	(0.08)
Std Dev	0.06

Building Products	
Ticker	R Value
IBP	0.25
PGEM	0.15
AMWD	0.10
USG	0.08
BLD	0.06
AWI	0.03
SWK	(0.05)
OC	(0.07)
MHK	(0.08)
MAS	(0.26)
FBHS	(0.40)
SHW	(0.46)
Average	(0.06)
Median	(0.01)
Std Dev	0.22

These tables show the sensitivity of the various Financials & Housing subsectors to the 10-Year Treasury yield over the past year. We've highlighted the 8 housing sectors. 6 of the 8 are in the bottom quartile for rate sensitivity, meaning that they are among the most inversely correlated subsectors in the group.

Source: Hedgeye, Factset



THE MANHATTAN PROJECT



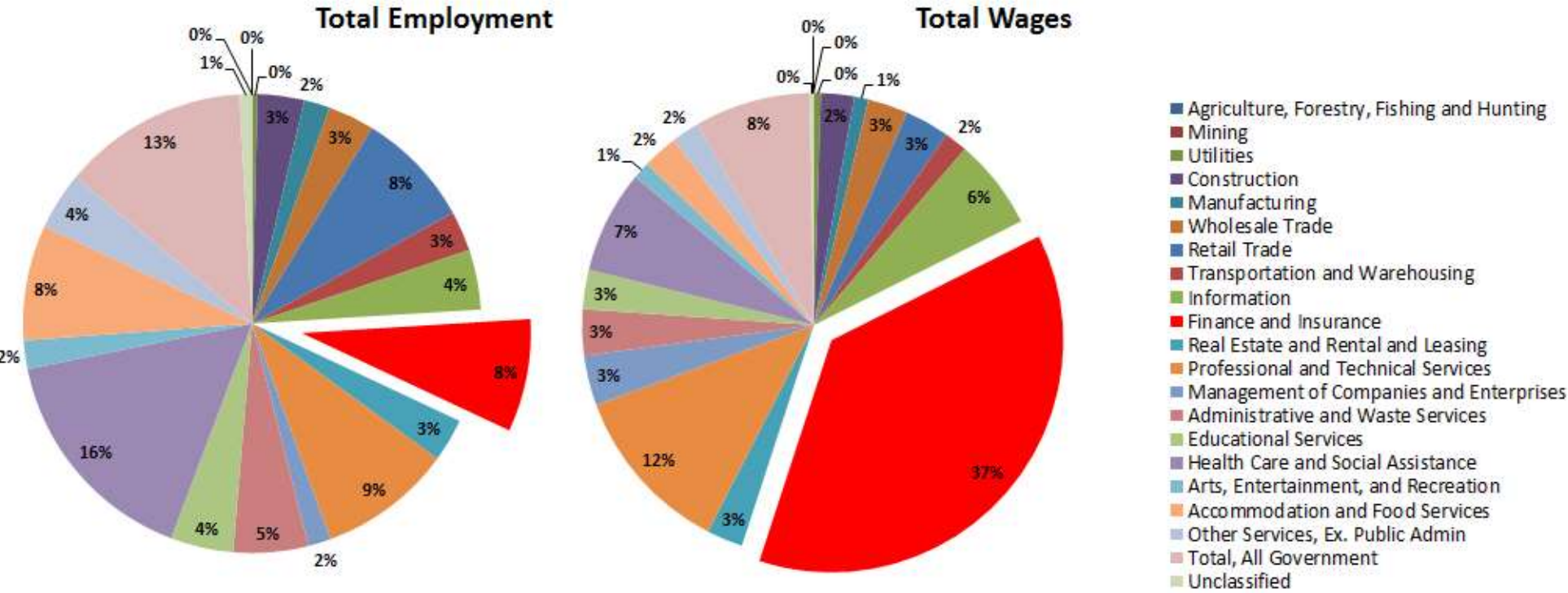
THE FOUR SUBTHEMES OF THE #MANHATTANMOVEOUT

- Definancialization
- Outmigration
- Tax Reform
- Peak Comps

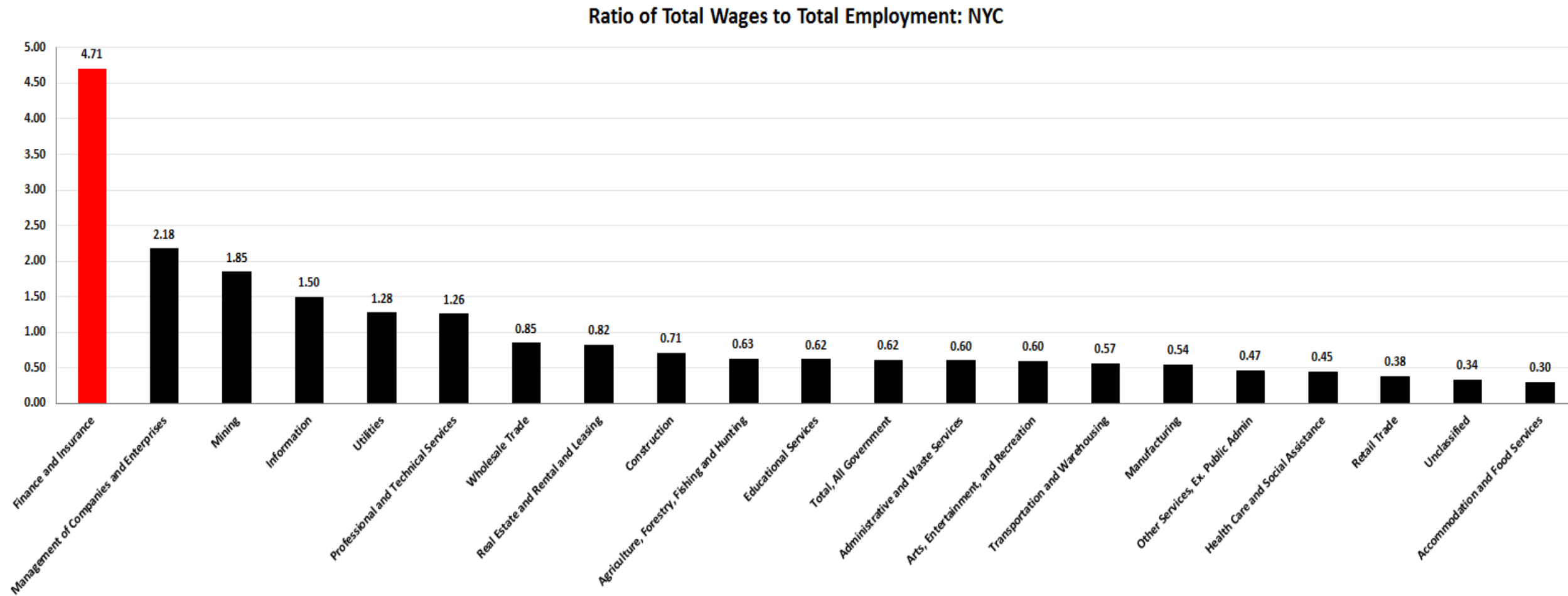


FINANCE JOBS: THE 800 LB GORILLA

The Financial Services and Insurance industry only account for 8% of total employment. However, this sector accounts for 37% of total wages.



FINANCE JOBS: REMARKABLY DISPROPORTIONATE

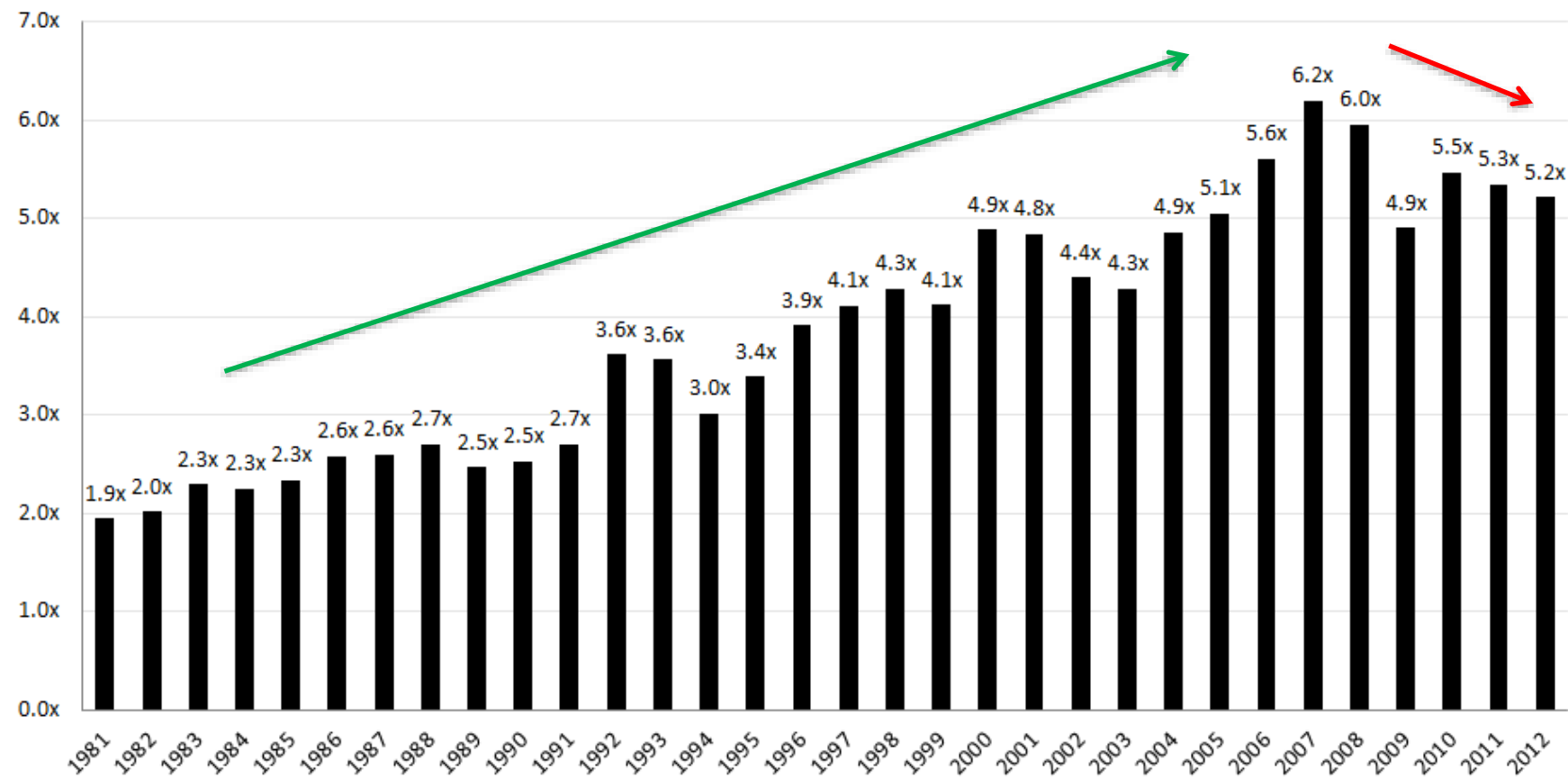


The Financial Services and Insurance industry only account for 8% of total employment. However, this sector accounts for 37% of total wages.

FINANCE: GOTHAM'S AGING KING

Note the inflection that occurred post the Great Recession.

Ratio of Average Salaries: Finance and Other Private Sector



MEANWHILE, THE MARKET'S VALUATION IS STRETCHED

Shiller PE Ratio

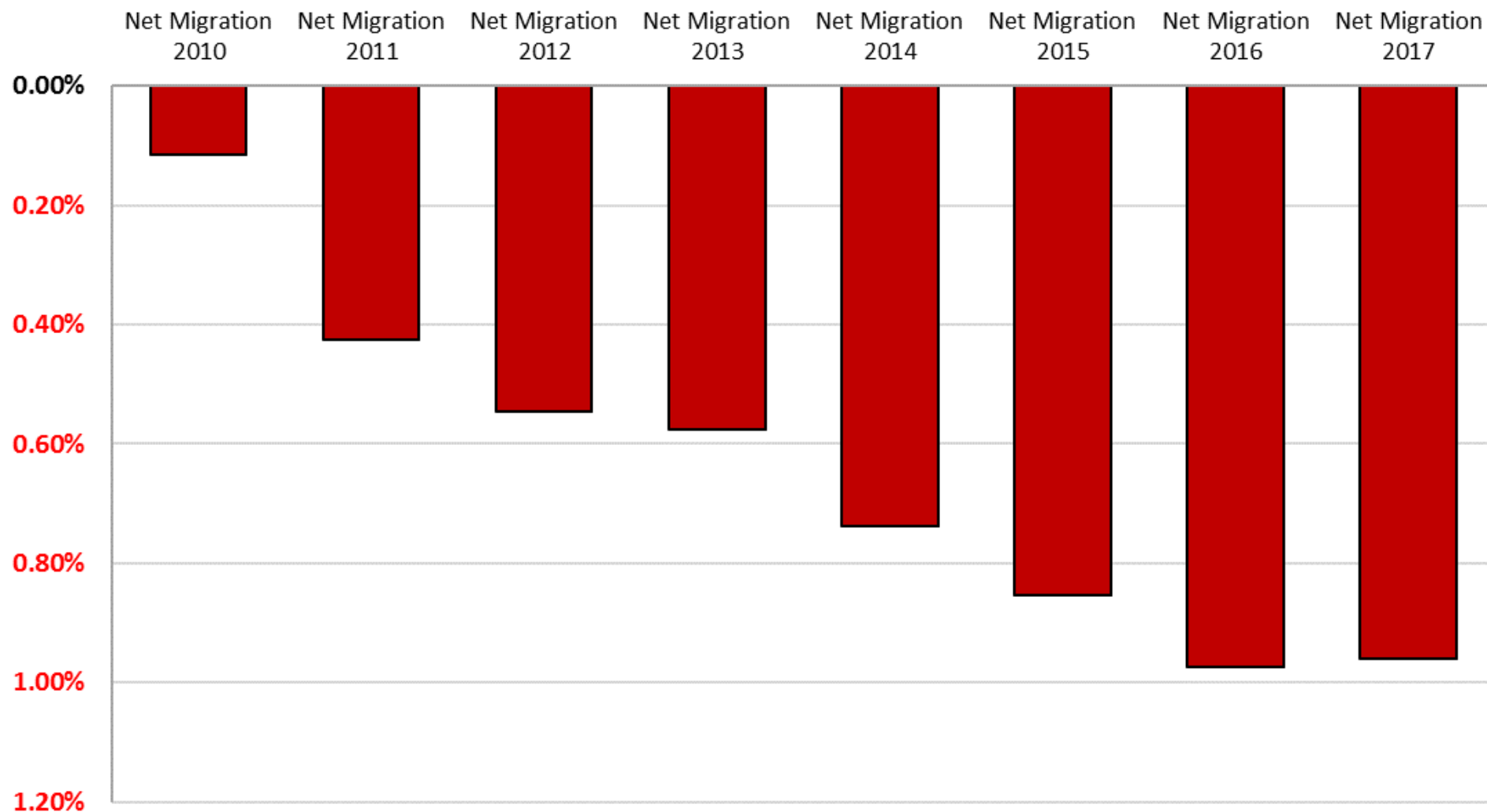


It's worth mentioning that on a CAPE Ratio (Shiller P/E) basis, the market is at 31.5x and is trading above valuation levels seen 95% of the time over the last 135 years.

AQR has analyzed the prospective market returns in the decade following various levels of CAPE valuation and has found that when the market is in the 10th decile, as it is today, the expected forward real return is just 0.5% per year for the next decade.

OUTMIGRATION

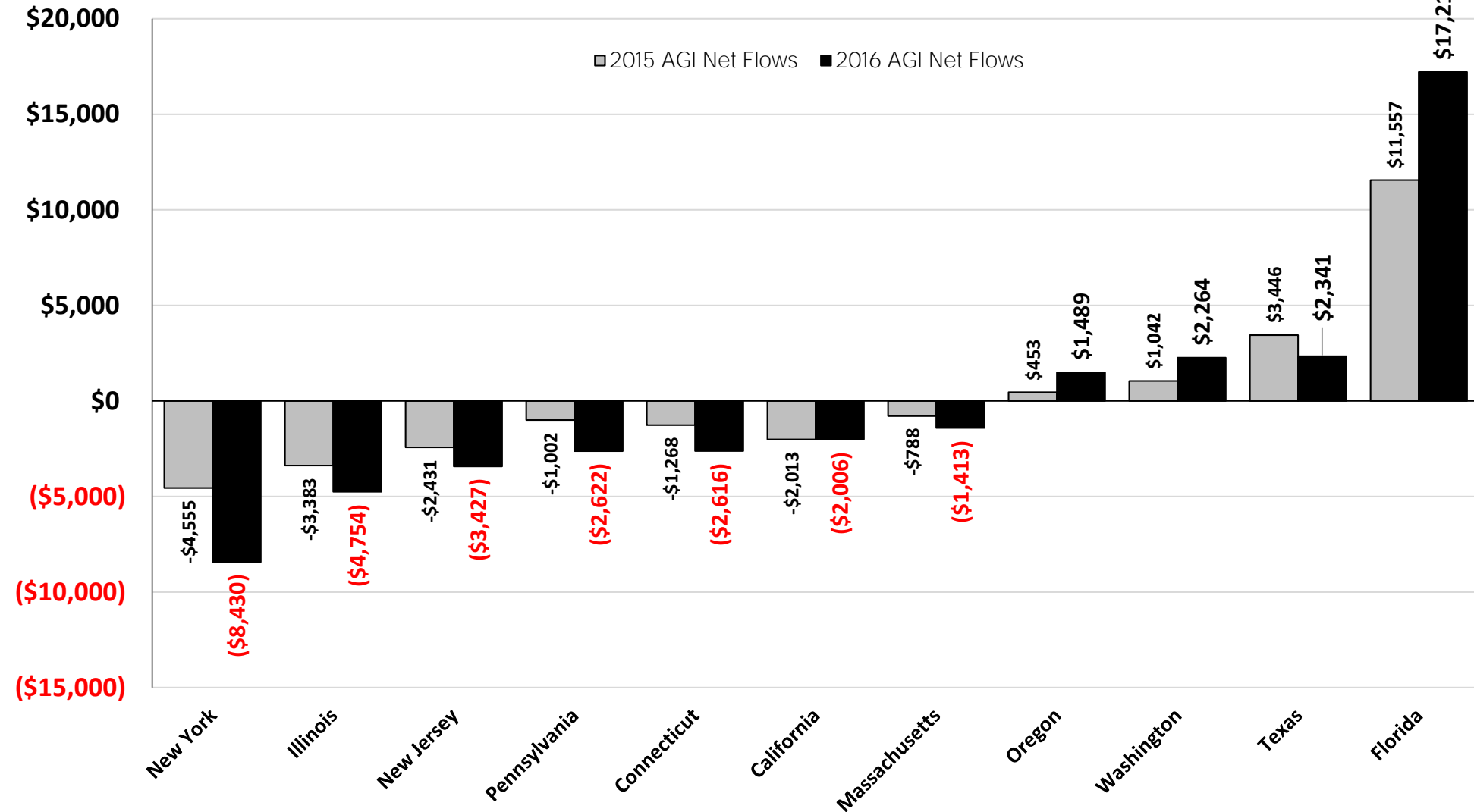
New York



Outmigration from New York is not a new trend, but one that has been accelerating and one we expect to persist/accelerate further alongside tax reform.

WEALTH IS LEAVING THE NORTHEAST AT AN ACCELERATING RATE

Net Flow of Domestic Non-Foreign AGI
(In Millions \$)

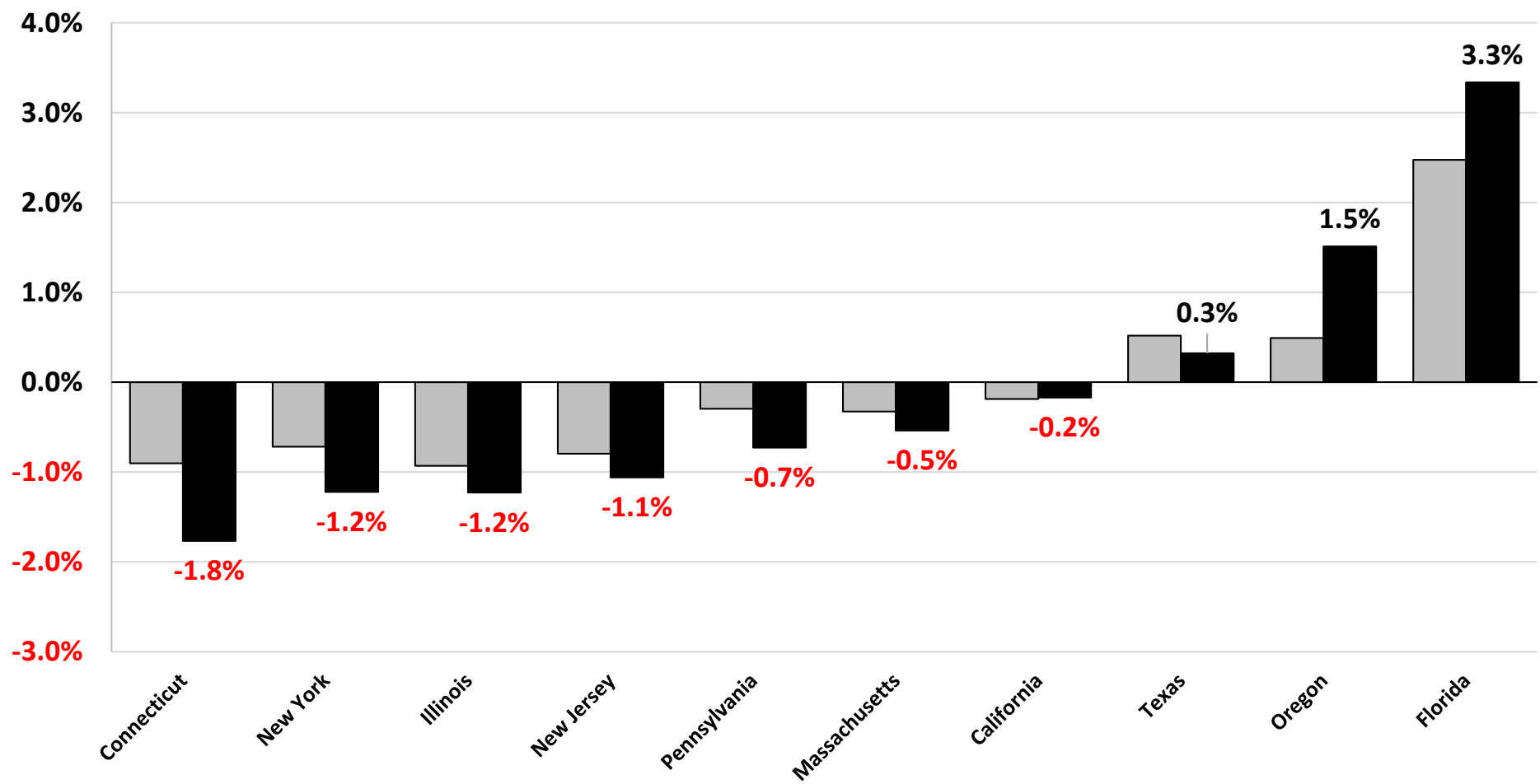


Between 2015 and 2016, \$14.5 billion in AGI, net left the Tri-State area, much to the benefit of Southern states, namely Florida (+\$17.2 billion).

MONEY LEAVING CONNECTICUT AND NEW YORK ... FAST

Net Domestic AGI Flow as a Percent of Year-Prior AGI

■ 2015 Net Flow as a Percent of AGI ■ 2016 Net Flow as a Percent of AGI

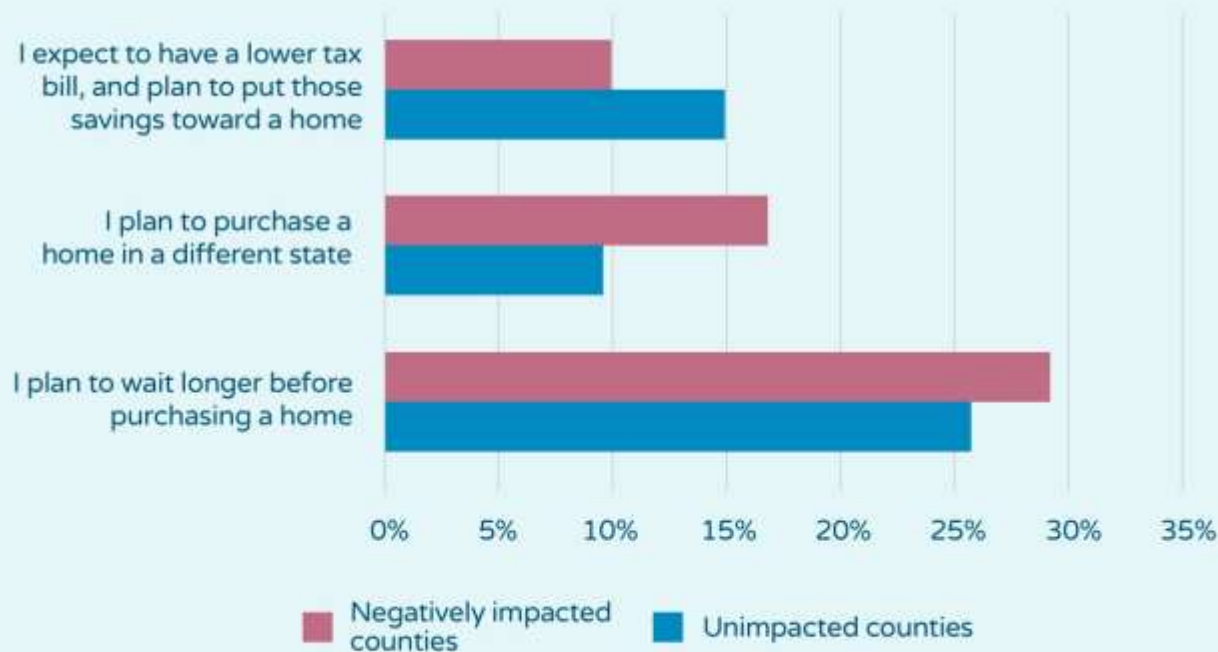


Already, the high SALT states have seen significant, costly outflows of money. The South and the West have benefitted from this move.

TAX REFORM

In areas where the changes hit hardest, 18% of potential buyers say that they now plan to purchase a home in a different state.

How have your homeownership plans changed in response to tax reform?



Source: Apartment List Survey; Census; Apartment List calculations.

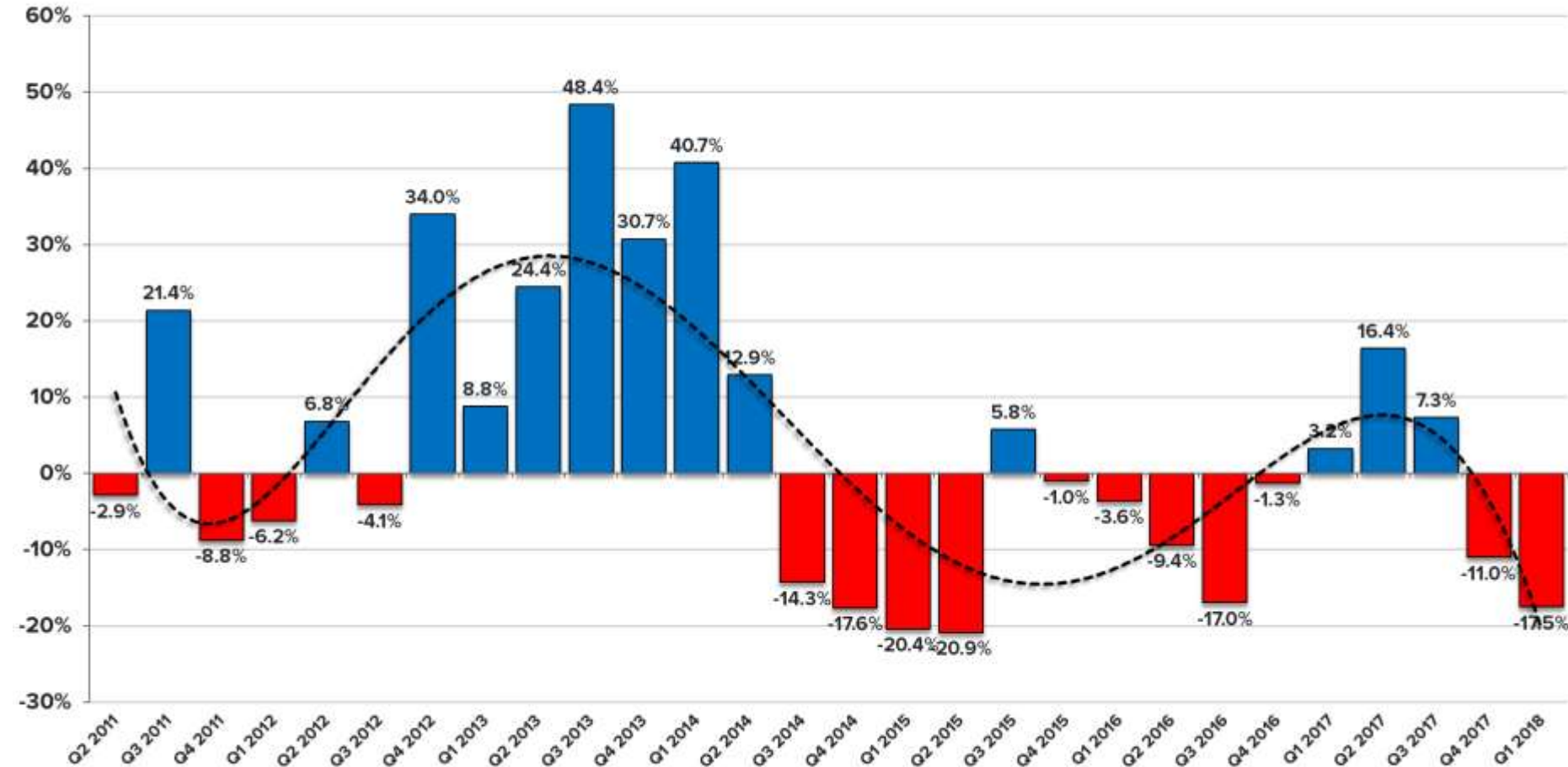
Note: Counties are categorized as negatively impacted or unimpacted based on whether or not the median homeowner is expected to lose housing-related tax benefits.

apartment list RENTONOMICS

To no surprise, respondents in areas with high SALT taxes and other negatively-impacted tax related matters are considering moving to more affordable states

RESALE VOLUME SLIDING

Manhattan Resale Unit Volume- YoY Change



Source: Douglas Elliman

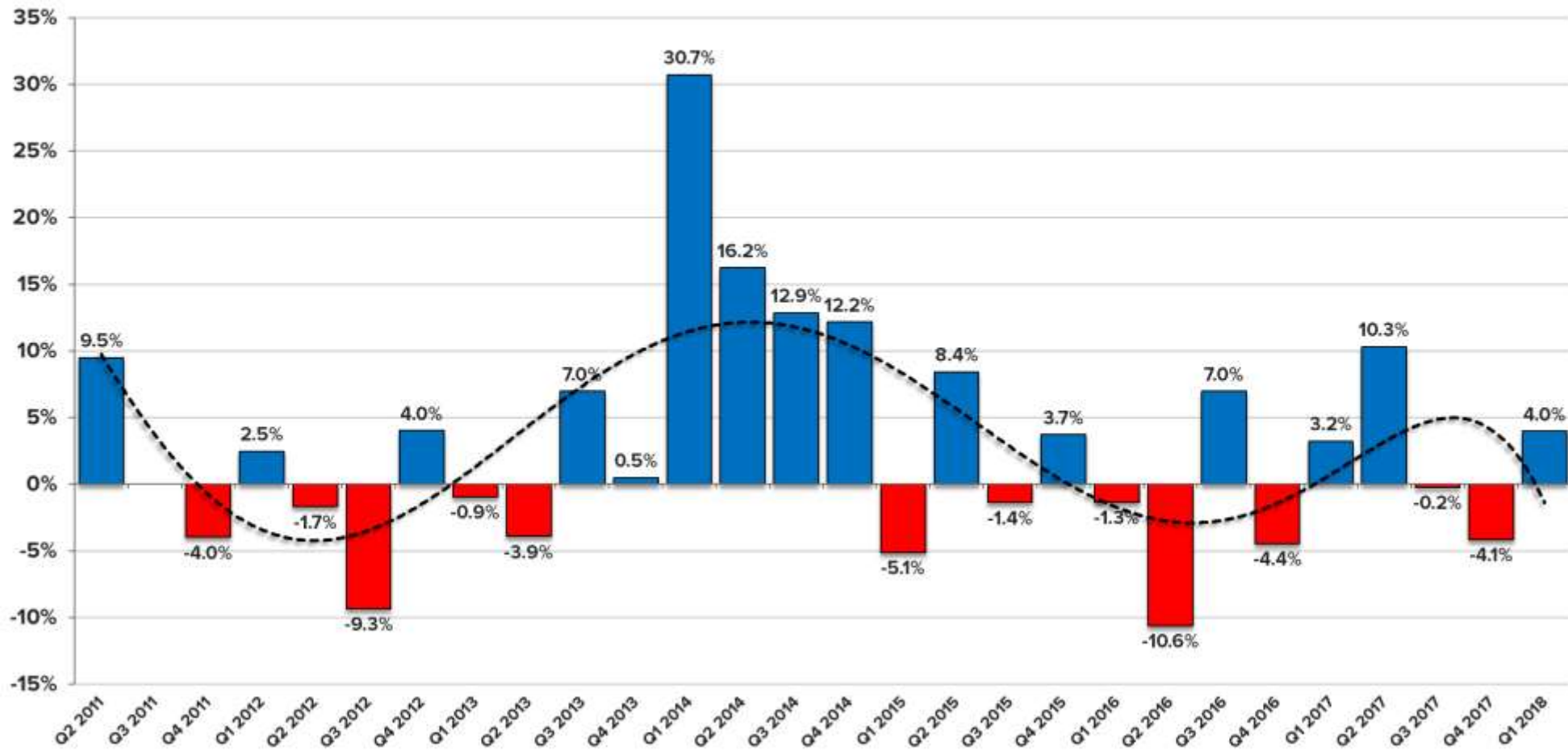
© Hedgeye Risk Management

In the aftermath of the Trump Tax Reform's writing and eventual passing, volume demand in the Manhattan resale market faded against relatively weak comps.

The coming 3 quarters will only get more difficult, with some of the strongest quarters in 3 years being comped against.

PRICES ARE UP AND DOWN

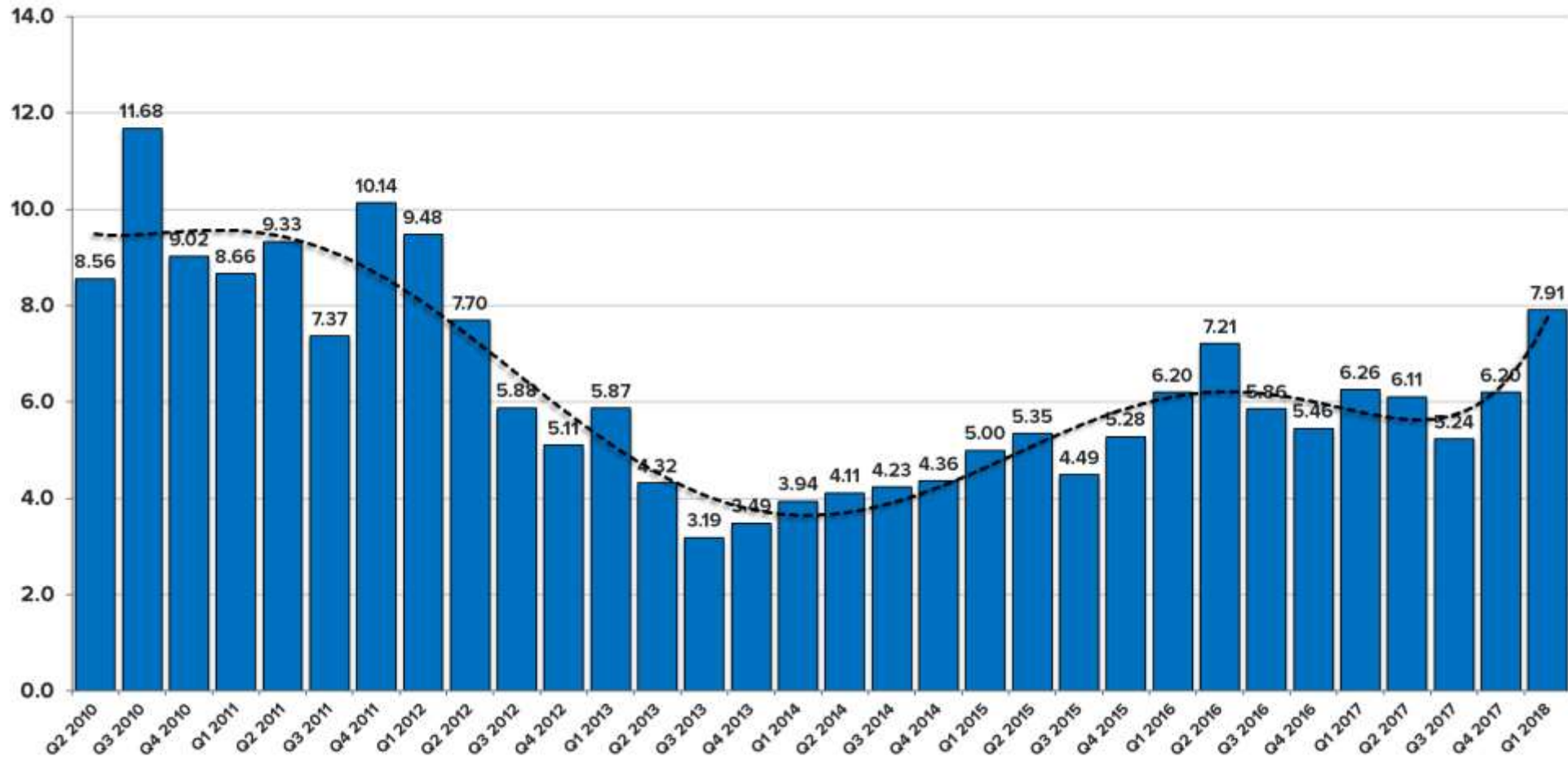
Manhattan Resale ASP- YoY Change



Average selling price was up for the quarter in resales, but this historically has been with little in terms of sequential or seasonal trends.

MONTHS SUPPLY TRENDING UP

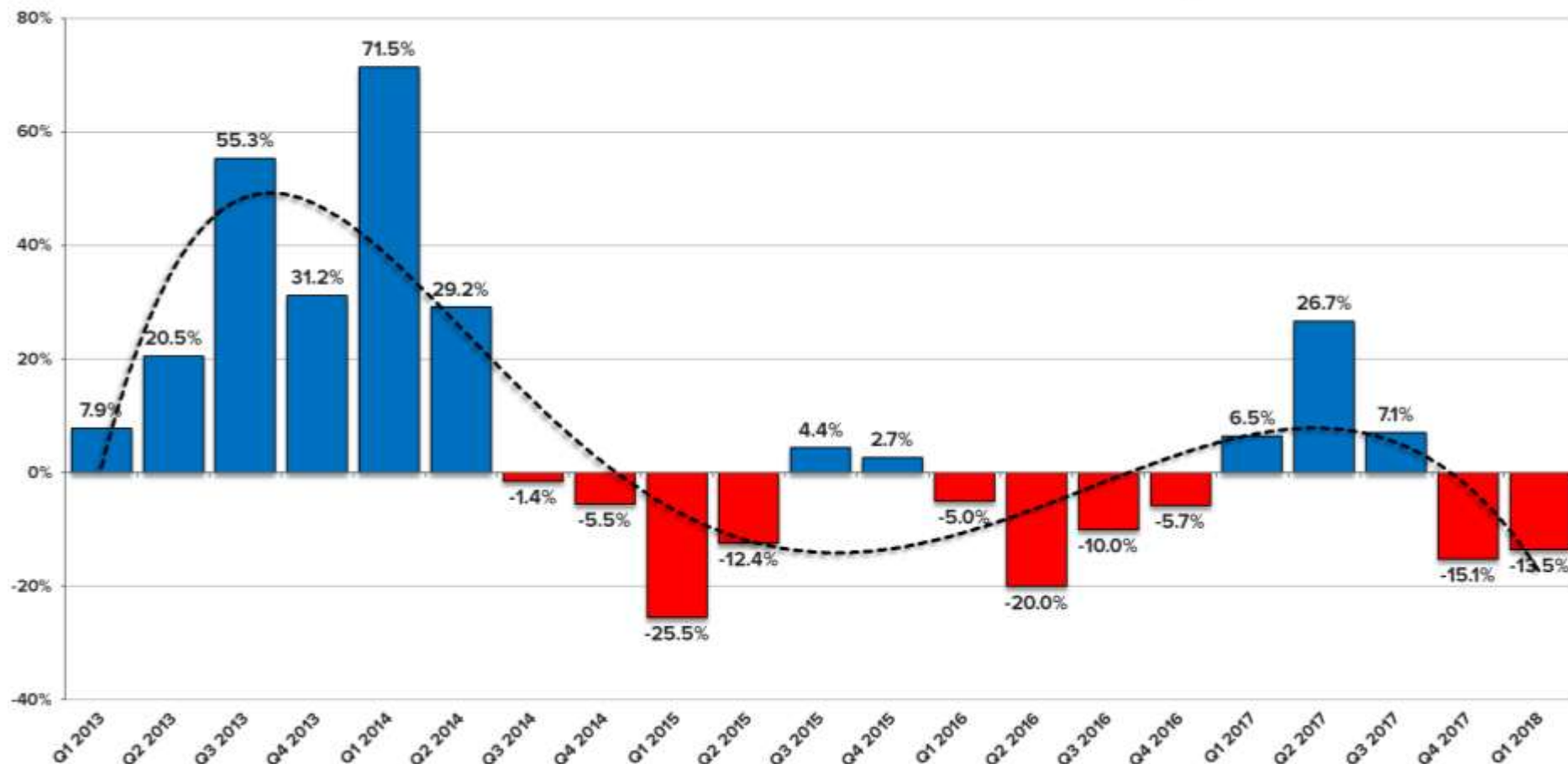
Manhattan Resale Months Supply



Most importantly, we are starting to see an upward inflection in the past to markets for months supply of inventory, reaching new cycle highs.

DIFFICULT COMPS ARE COMING

Manhattan Resale Market Dollar Volume - YoY Change



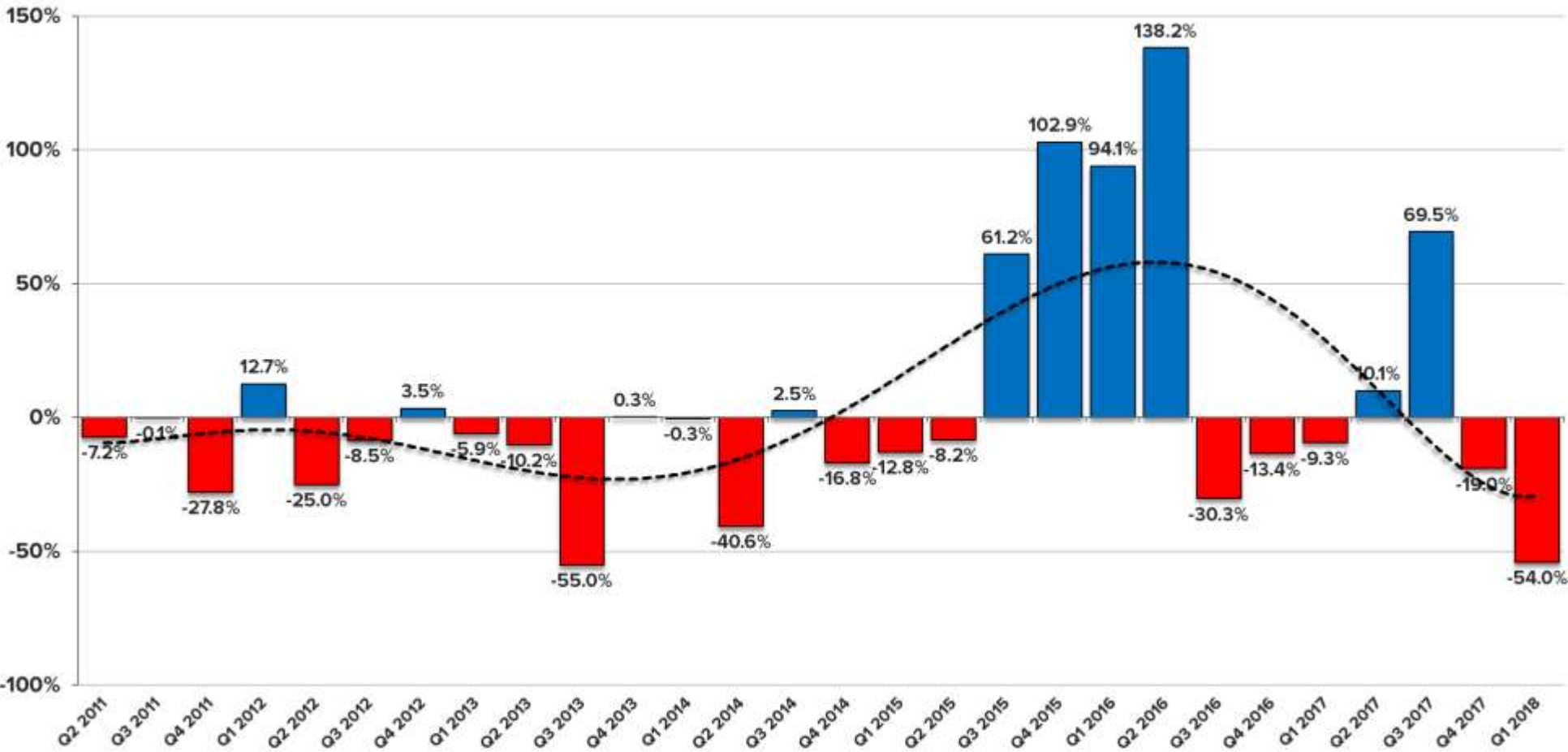
With a significant amount of multifamily housing coming into supply in NYC over the past few quarters, pricing has seen downward pressure, allow for the market to transition to a seller's to a buyer's market.

Buyers have no intent on purchasing an apartment immediately when they have the opportunity to drive negotiations. Well informed buyers realize that NYC prices are forward-trending flat to down, putting the cards in their favor.

Moreover, out of region buyers see the Manhattan market as less desirable from a tax perspective, pushing cost of living even higher.

NEW DEVELOPMENT IN ROUGH WATERS

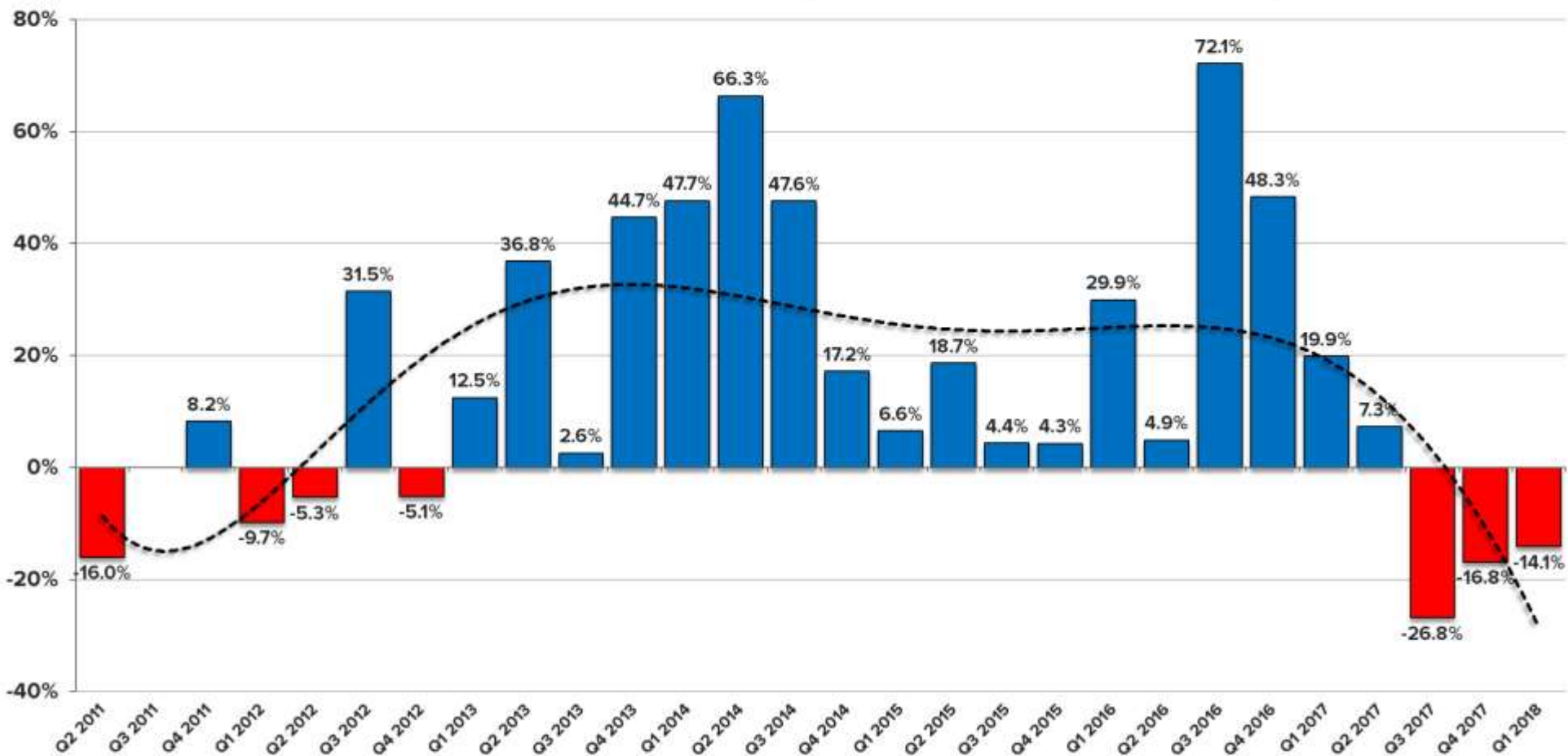
Manhattan New Development Unit Volume - YoY Change



Since rampant building brought significant new units to the market, New Development has had very difficult comps to match, with the forward months only getting harder.

DECLINE PRICES

Manhattan New Development ASP - YoY Change

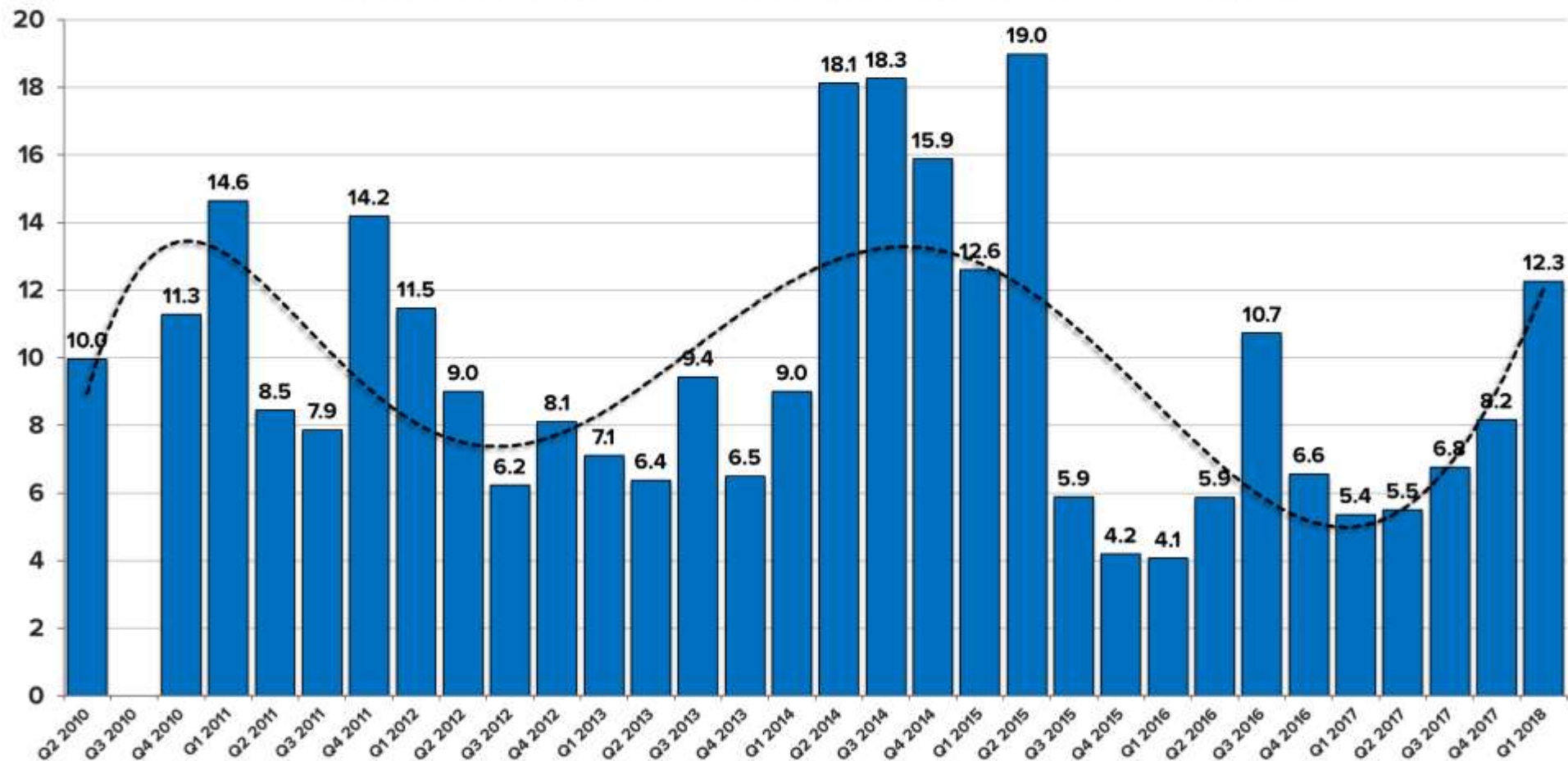


ASP continues to decline, albeit at decelerating rates on the backs of easy comps. The next few quarters will be easy comps as well.

Given the excess of supply existing in the market, pricing has become more sensitive to the demands of the buyers.

NEW DEVELOPMENT ON SHORT CYCLE

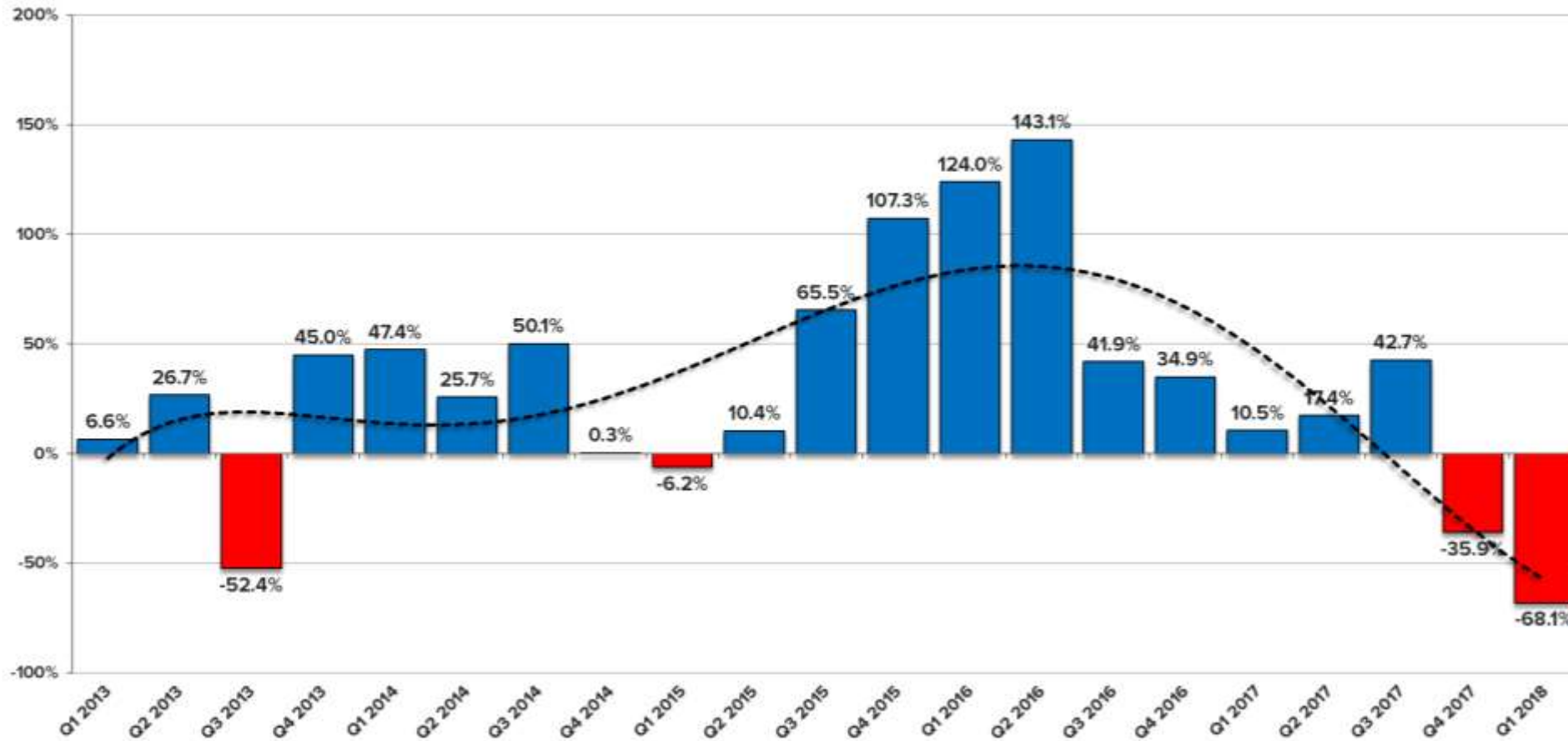
Manhattan New Development Months Supply



Months supply of new development in Manhattan increased nearly ~50% sequentially and ~128% annually in the first quarter.

NEW DEVELOPMENT MARKET: TOUGH COMPS, OR WHAT?

Manhattan New Development Market Dollar Volume - YoY Change



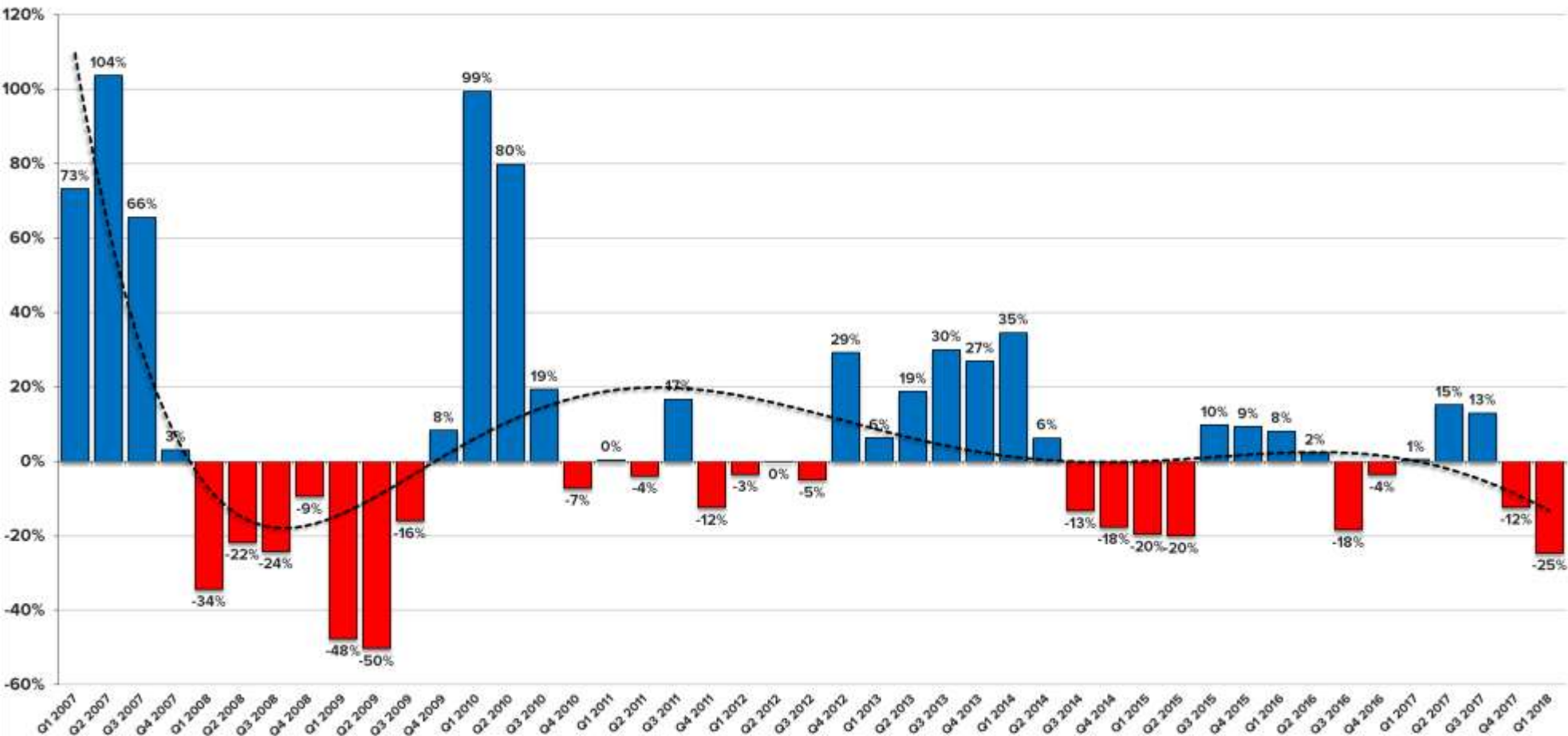
This downward inflection has been some time coming following the past 2-3 years of significant growth in the New Development market. In its time, it leached some buyers away from the resale market; now, the supply/dynamic has edge in favor of the buyers.

Out quarters look to continue being tough on a comp basis.

MANHATTAN SALES VOLUME SLOWING

Against relatively weak comps, unit volume in Manhattan fell significantly as buyers removed themselves from the market for the near to immediate term.

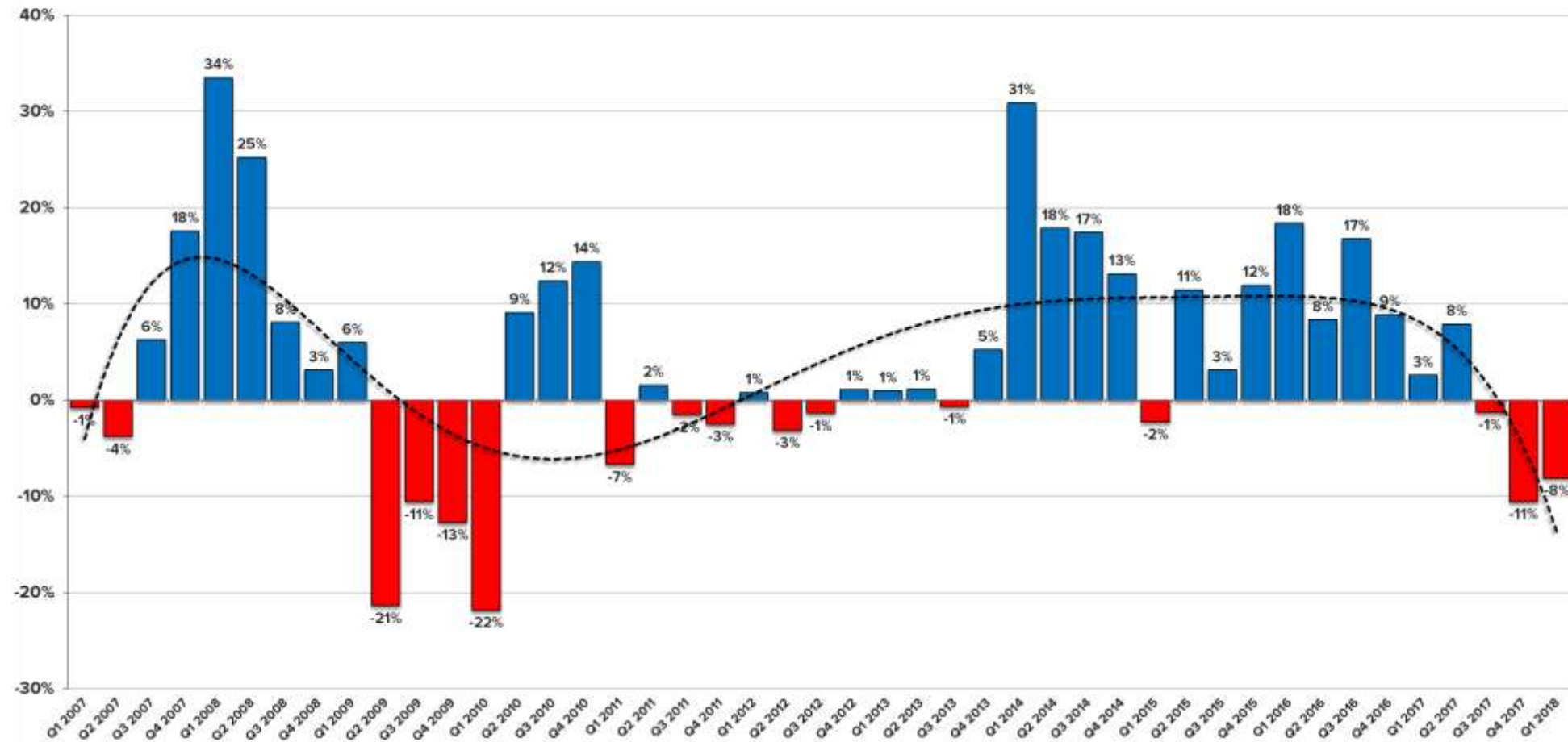
Manhattan Unit Volume- YoY Change



MANHATTAN ASP SUBMERGED

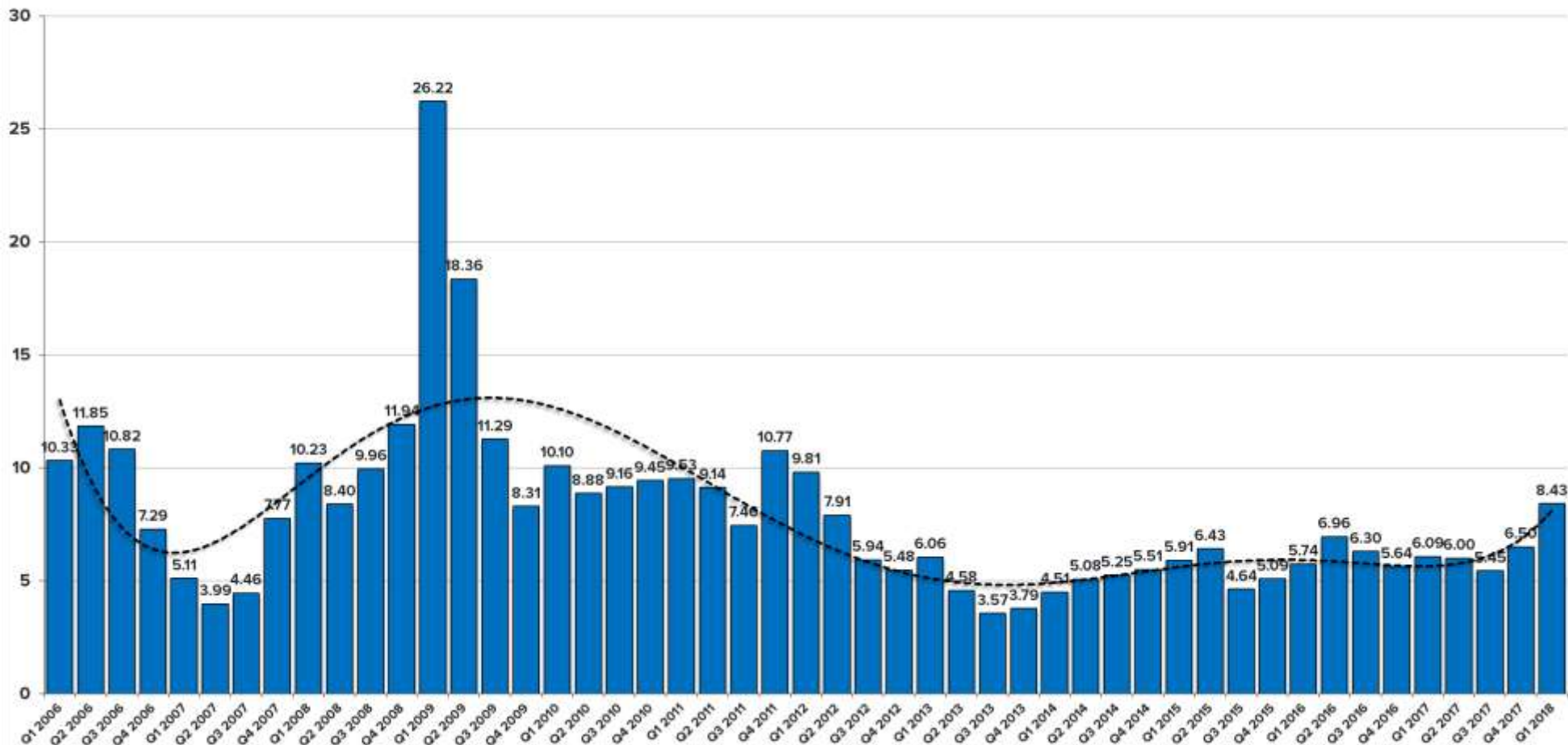
Following the passing of tax reform, Manhattan home pricing has been under assault.

Manhattan Market ASP- YoY Change



MANHATTAN MONTHS SUPPLY WITH RAPID INCREASE

Manhattan Market Months Supply

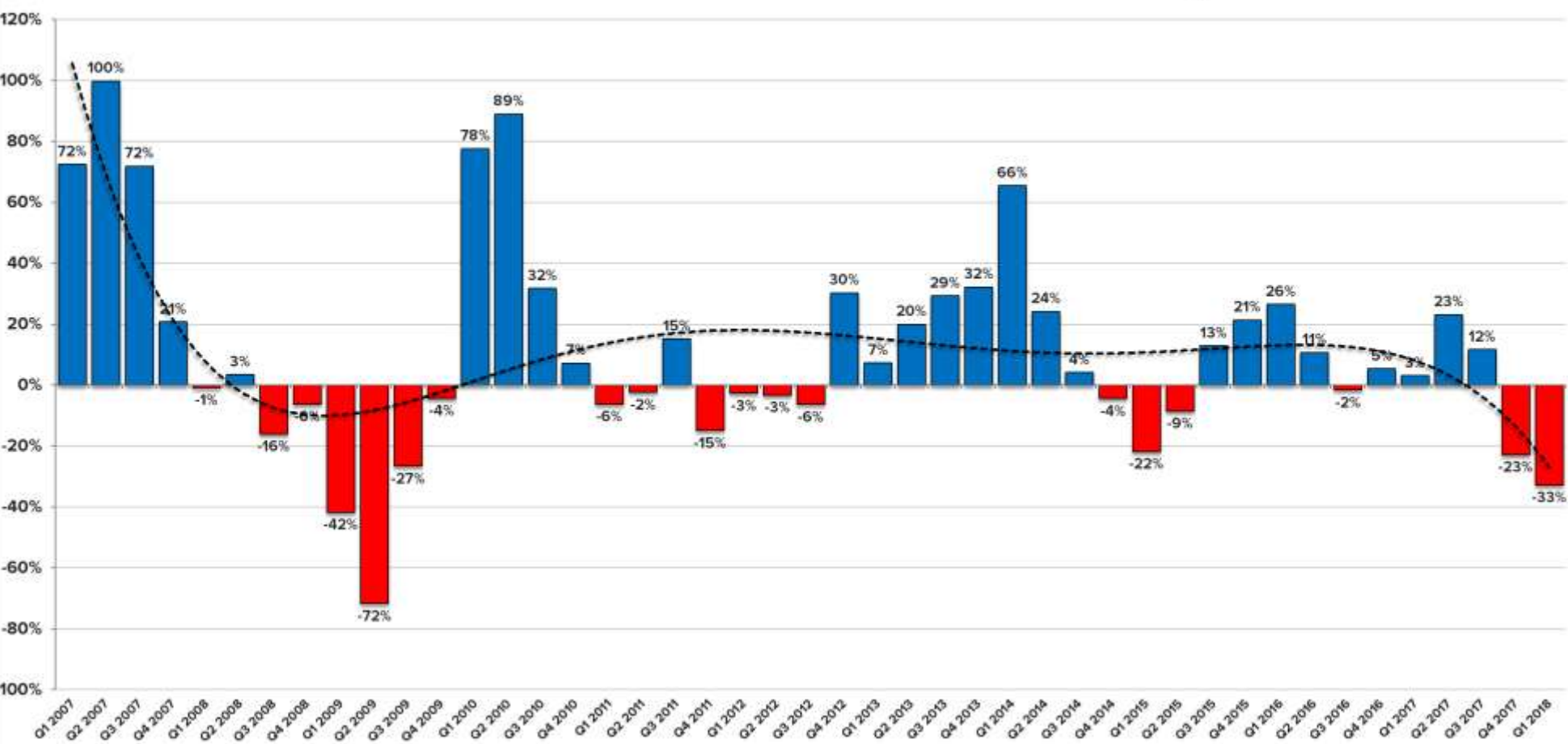


As was the case with the sub-market indices so too with the inventory of the broader market. Manhattan is seeing significant upward inflections for the first time since before the recession

MANHATTAN MARKET A BUYER'S MARKET?

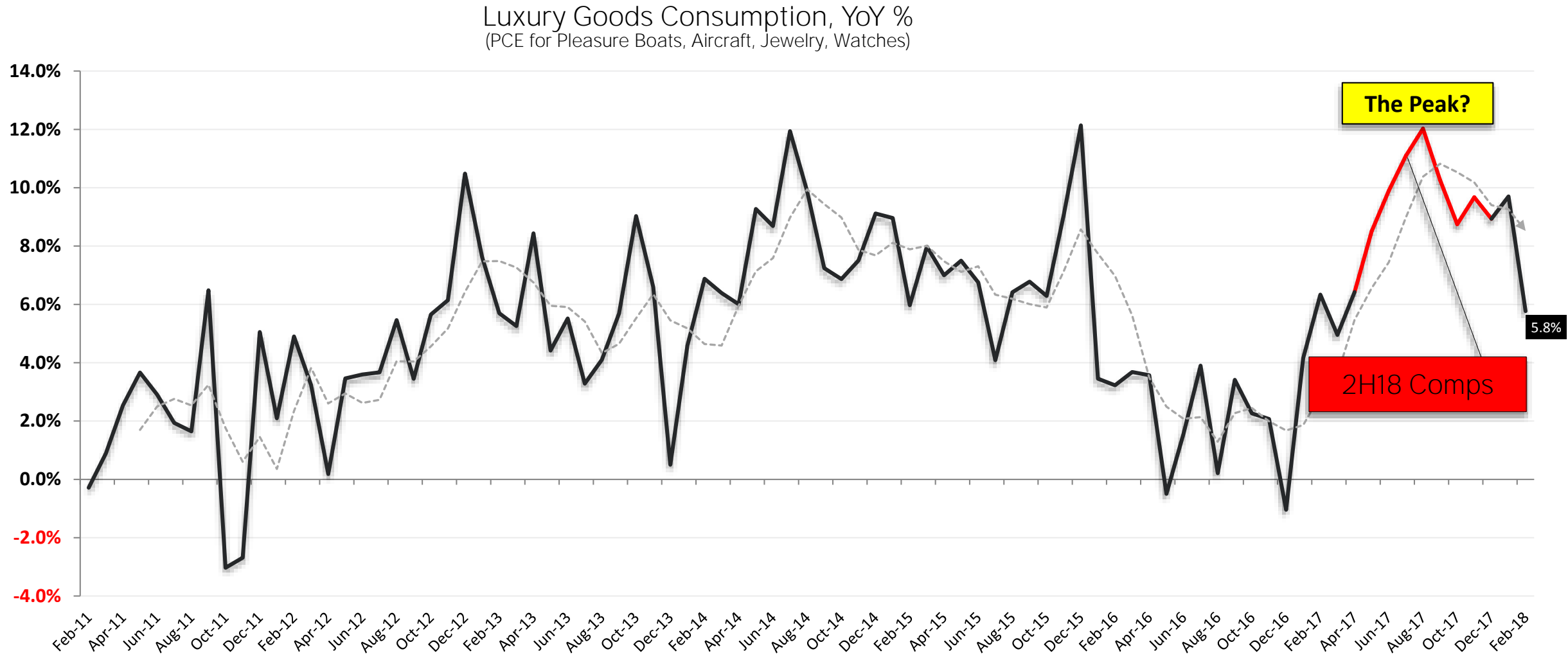
As both volume and pricing in NYC are put to task, informed prospective buyers are holding out of the market for the time being, believing that price will pan out in their favor.

Manhattan Market Dollar Volume- YoY Change



AND COMPS FOR THE HIGH END ONLY GET TOUGHER!

RAMPANT ASSET PRICE INFLATION, ATH'S AND THE BEST RISK ADJUSTED RETURNS OF THE CYCLE DROVE LUXURY CONSUMPTION GROWTH TO ITS FASTEST PACE OF THE CYCLE IN 2017.





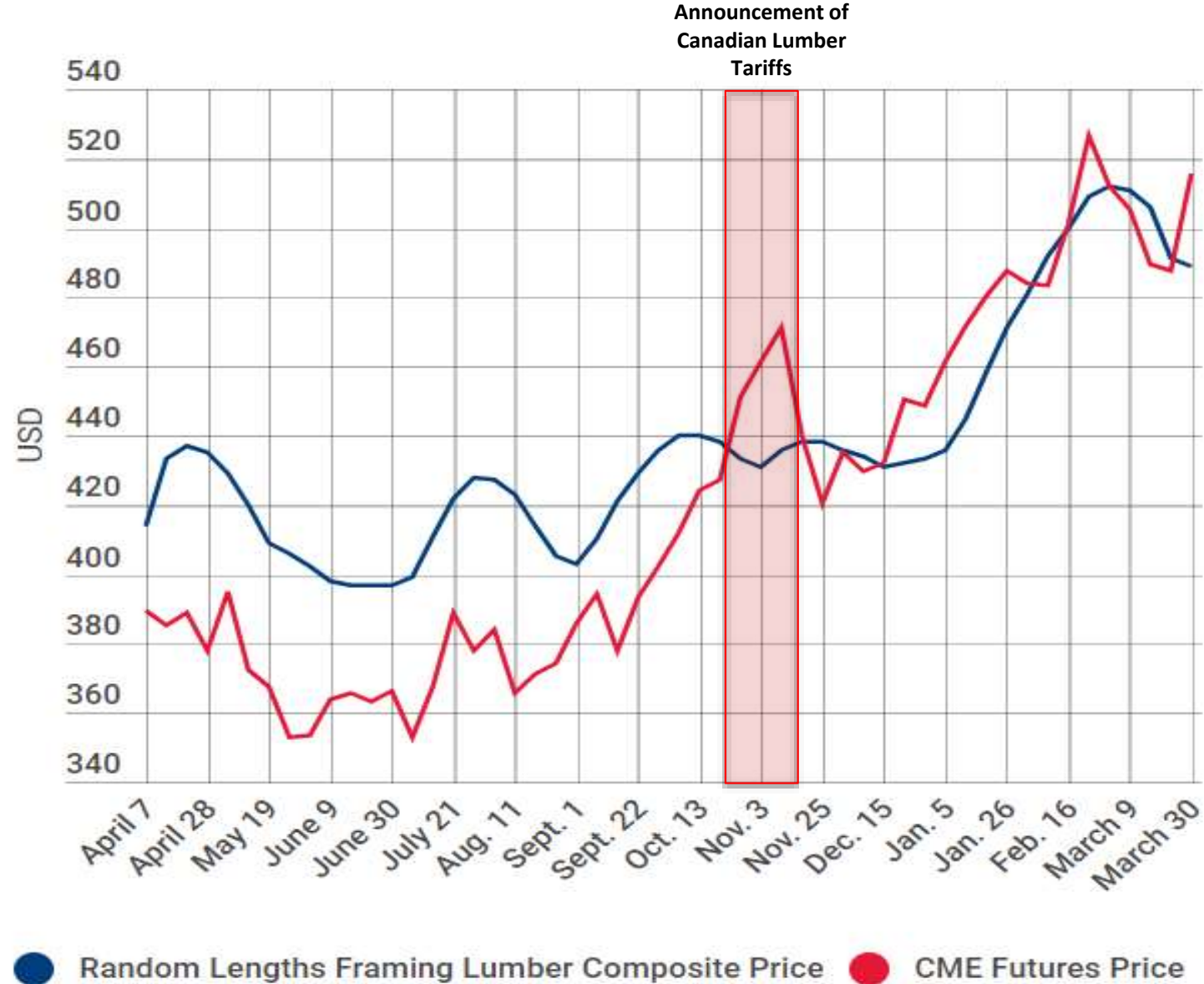
TERROR FROM TARIFFS?

36 WEEKS IN TARIFFS

- November 2017- Canadian Lumber Duties
- January 2018- Solar Panel and Washing Machine Tariffs
- March 2018- Tariffs on Steel and Aluminum Imports
- March 2018- Chinese Counter-Tariffs on 128 US Products
- April 2018- Continued Posturing from the US and China

In what has been a mounting series of new trade battles between economic partners, some components of home building have become more expensive in the aftermath.

TARIFFS HAVE AN IMMEDIATE IMPACT ON THE COST OF INPUT

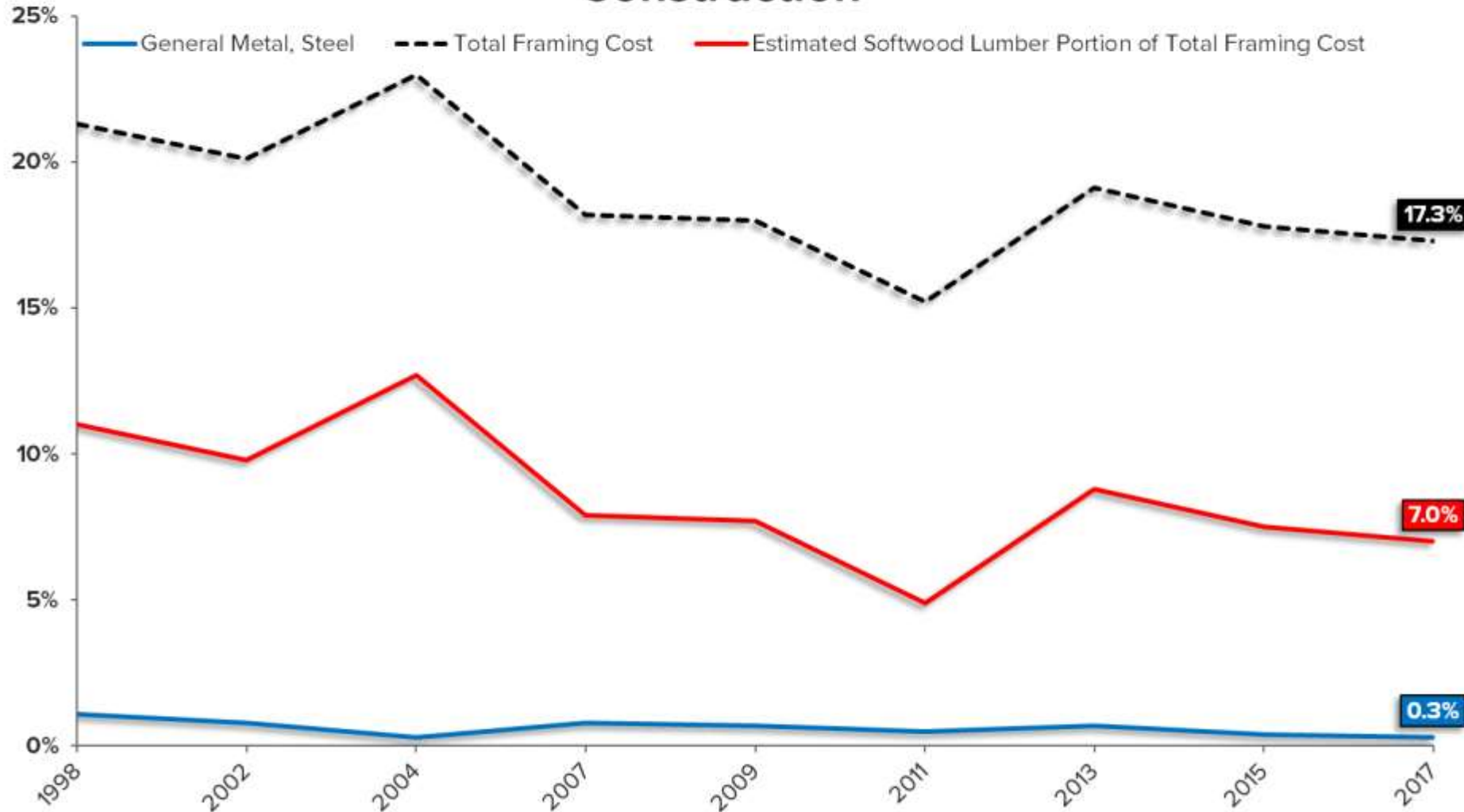


Canadian Lumber Tariffs were announced on November 3rd 2017 and carried immediate price consequences. From peak price pre-announcement to peak post, the cost of lumber increased +15.9% in the market. Lumber prices are currently running +35% Y/Y

Note the pricing is comprised using the highest volume-producing regions within the US and Canada.

SINGLE FAMILY HOME CONSTRUCTION DOESN'T USE MUCH METAL

Percentage of the Total Cost of Single Family Home Construction



Fortunately for the home builders, the cost of building a single family home should not be dramatically impacted by the tariffs on steel and aluminum.

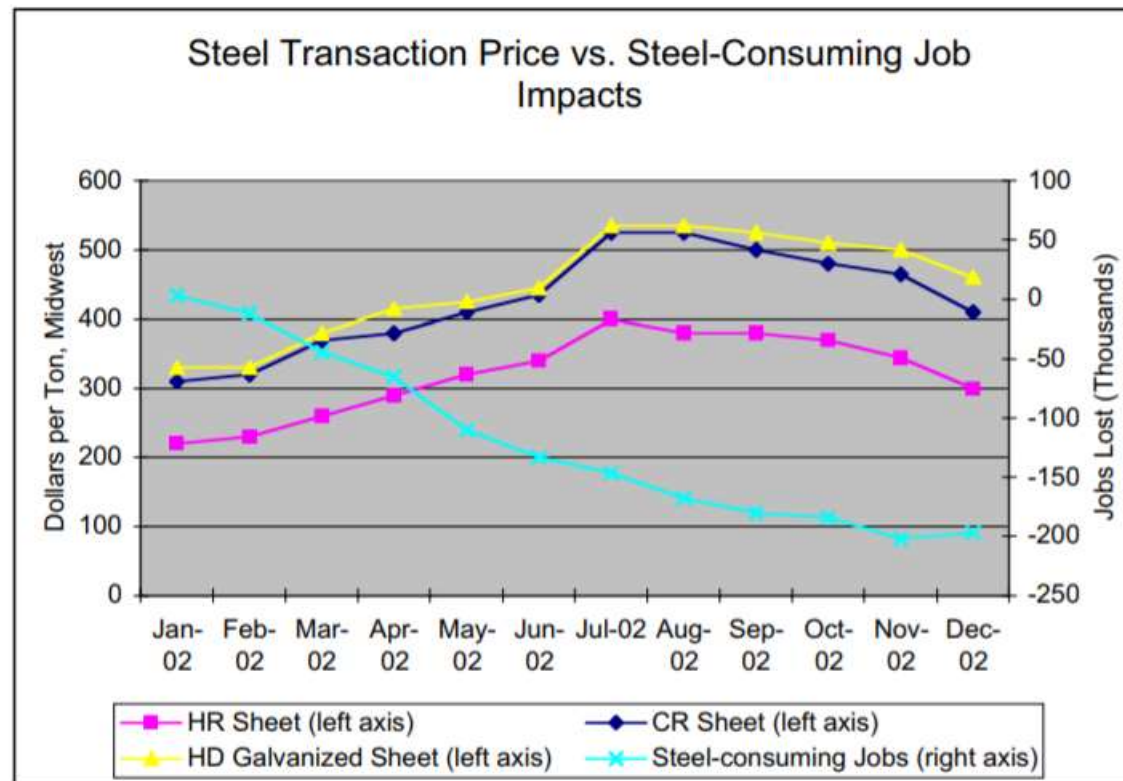
For the average single-family construction cost of \$237,760, only \$713.28 in cost is at risk from metal price increases.

In the case of lumber, roughly ~\$16,650 in input costs were exposed to rising lumber prices. Since the November Canadian duties, the cost of building a single family home in the US increased around \$2,000.

IF HISTORY REPEATS, HOUSING'S DEMAND DRIVERS ARE AT RISK

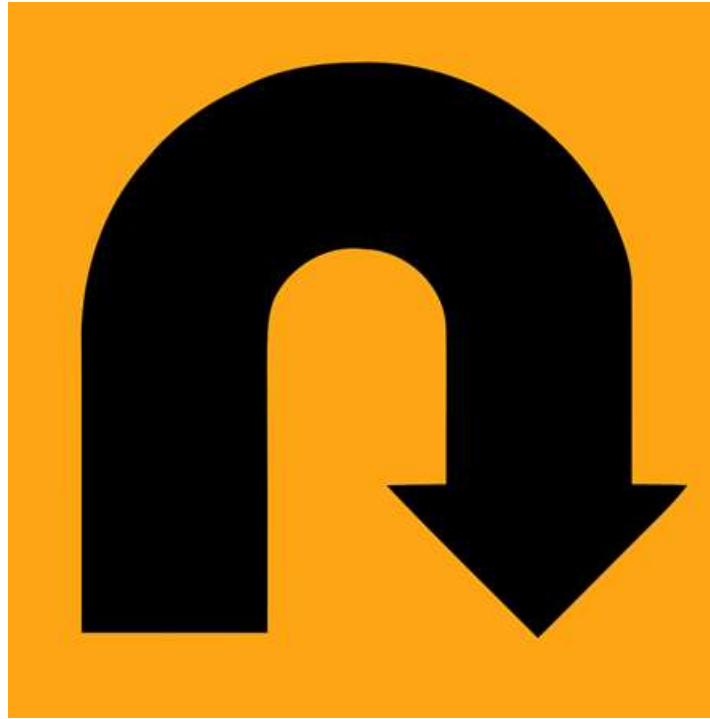
REVISITING BUSH-ERA STEEL TARIFFS

- 200,000 Americans lost jobs due to higher steel prices in 2002
 - \$4B in lost wages from February to November 2002
 - One out of four of these jobs occurred in the metal manufacturing, machinery and equipment/transportation equipment and parts sectors



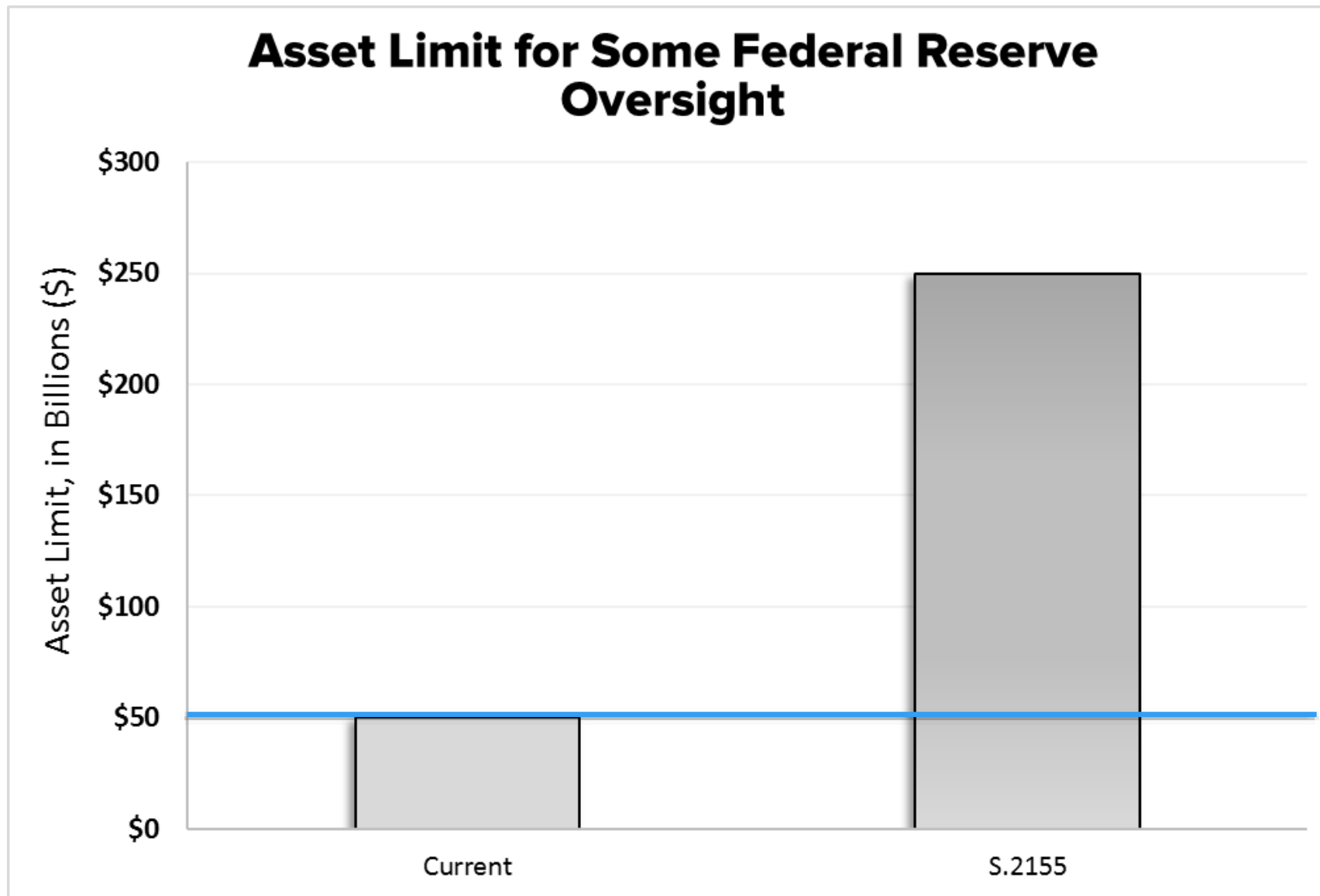
The introduction of tariffs has a historical context of creating disruptions in employment and lost wages. This only exacerbates if tariffs expand into a trade war.

Keep in mind the macroeconomic drivers of housing demand- namely, employment, wage growth, and rising equity. The loss of jobs offsets the demand



ROLLING BACK DODD-FRANK

SO WHAT CHANGED?

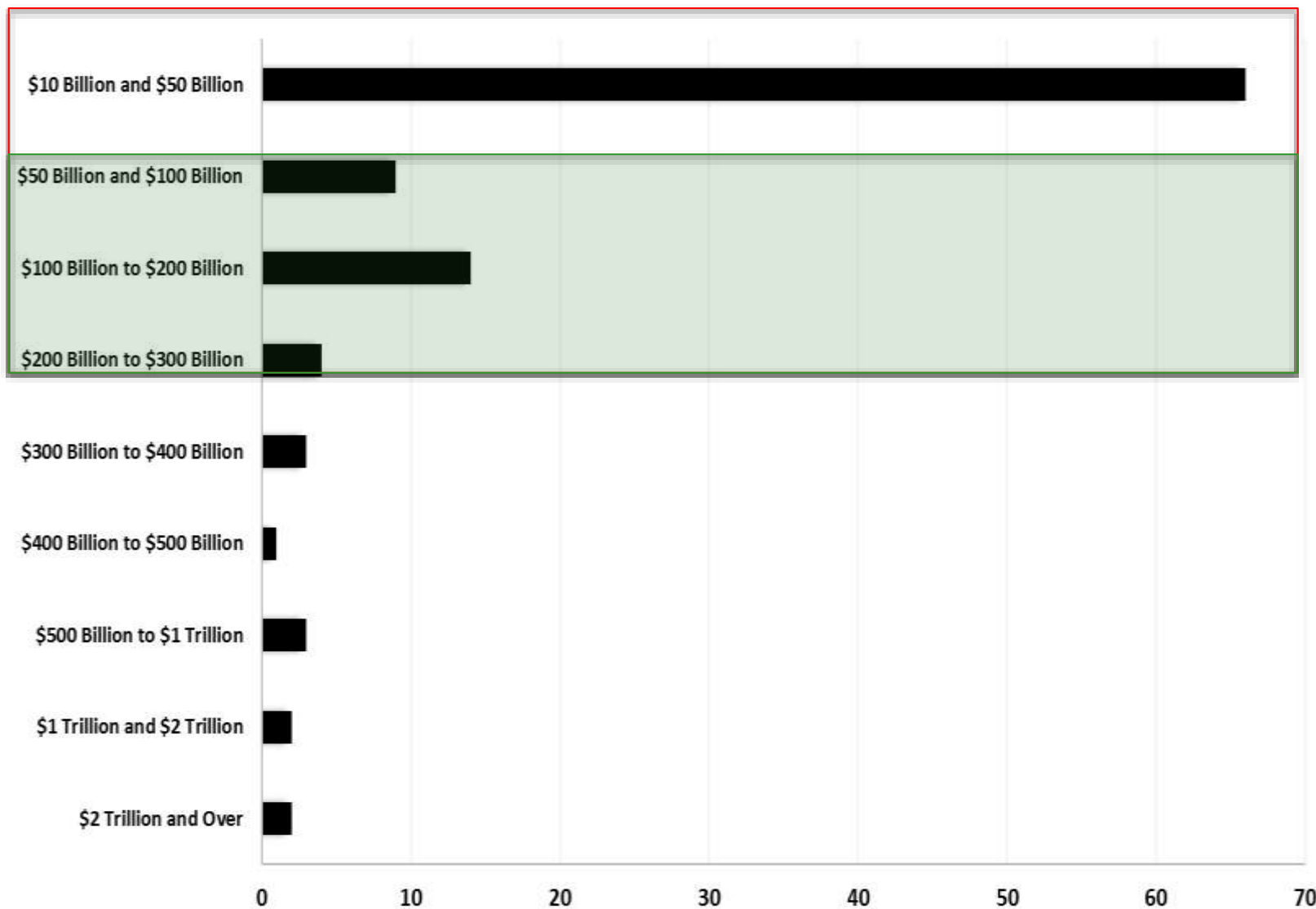


The changes to be made to Dodd-Frank via S.2155 would raise the limit in which a bank is considered “too big to fail” from **\$50B** to **\$250B**, allowing around two dozen mid-sized US banks to avoid certain regulation and oversight from the Fed.

The bill also exempts banks that extend 500 or fewer mortgages a year from reporting certain home loan data to regulators, and broadens what a qualified mortgages is.

REGIONAL AND SMALL BANKS BENEFIT

Number of Institutions in the US by Size of the Institution



**Traditionally
Small Or
Regional Banks**

**Banks Now
Subject to
Looser Rules**

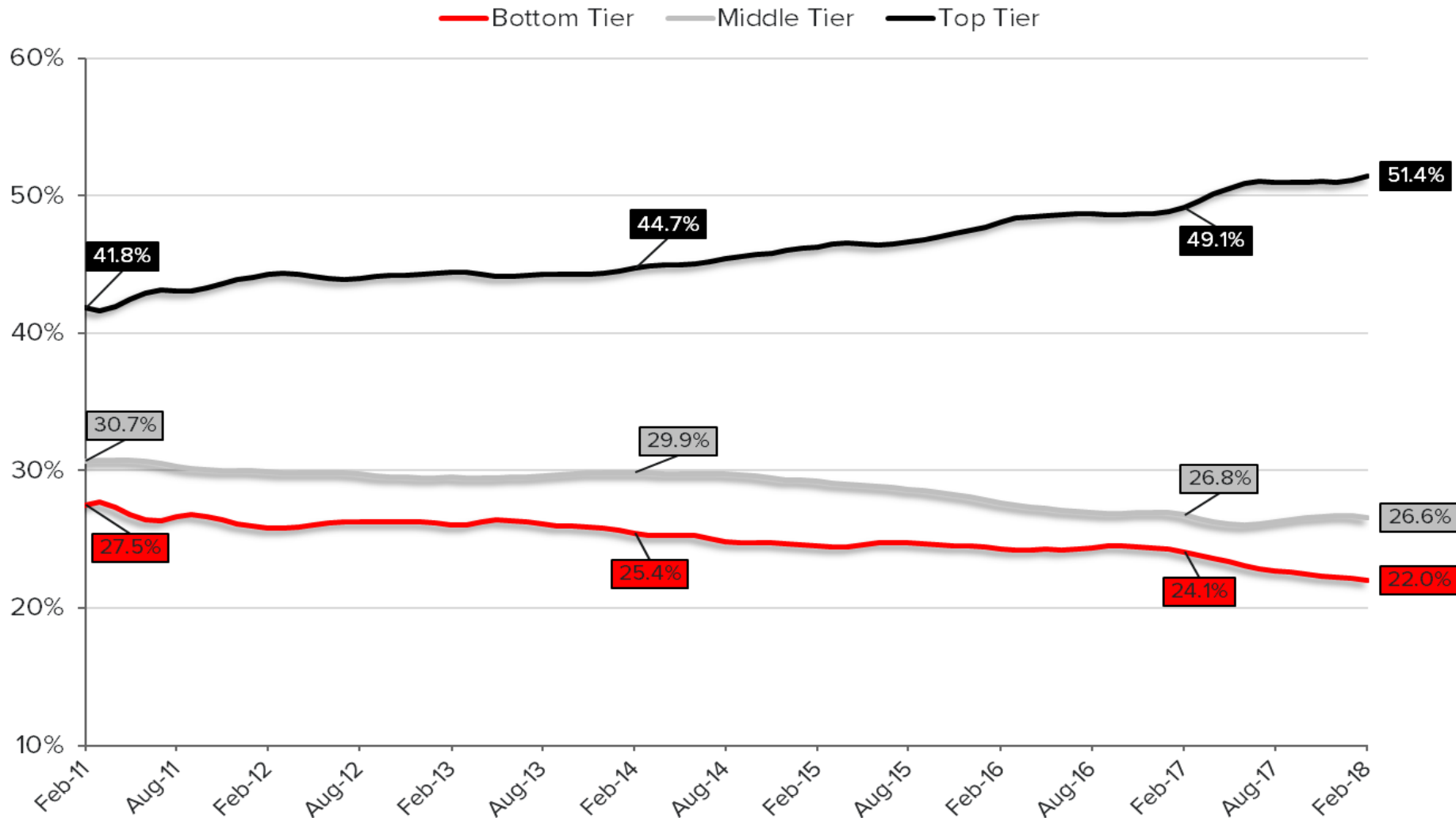
By and large, the banks face reduced regulation. Including the likes of Citizens, SunTrust, and BMO, those impacted are primarily regional players filling the needs of their local markets.

Included in the rollback:

- Loosening the Home Mortgage Disclosure Act
- Eliminates escrow requirements for higher cost mortgages made by banks and credit unions with assets up to \$10B (up from \$2B)
- For the above banks and CUs, the bill would exempt loans held in portfolio from requirements under the Qualified Mortgage rule.
- A rollback of appraisal requirements for higher-risk mortgages in rural areas

A REMINDER OF THE EXISTING CONDITIONS

**HOUSING INVENTORY BY PRICE TIER,
PERCENT SHARE OF INVENTORY**



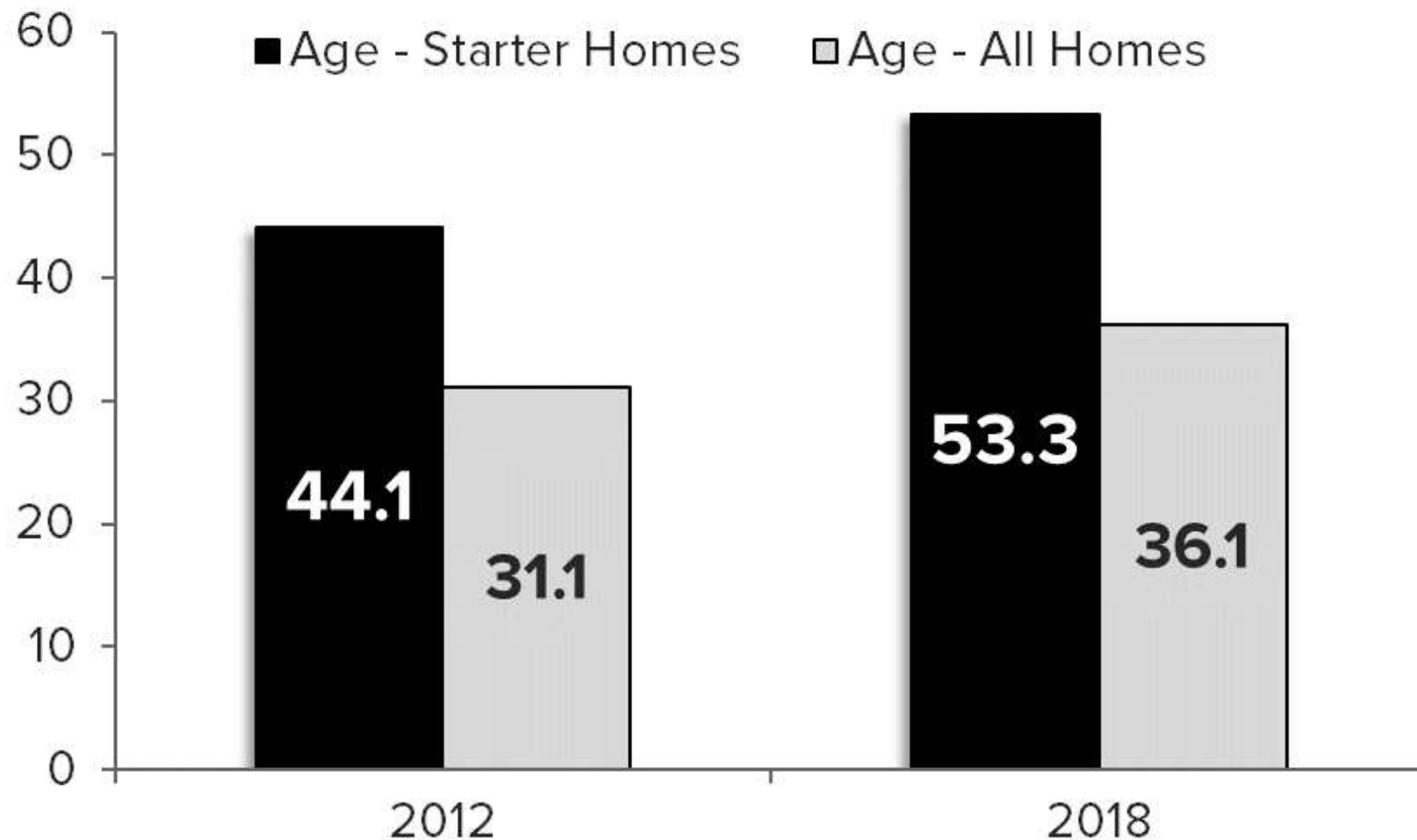
The expansion and loosening of mortgage financing would typically be a bullish event for demand, particularly at the low/middle tiers.

However, Supply, not Demand, remains the bottleneck to rising transaction volume.

In fact, increased demand at the low-middle end would likely serve to exacerbate the existing demand-supply imbalance.

ENTRY LEVEL HOMES – AGING GRACEFULLY?

Age of Homes- All Homes vs Starter



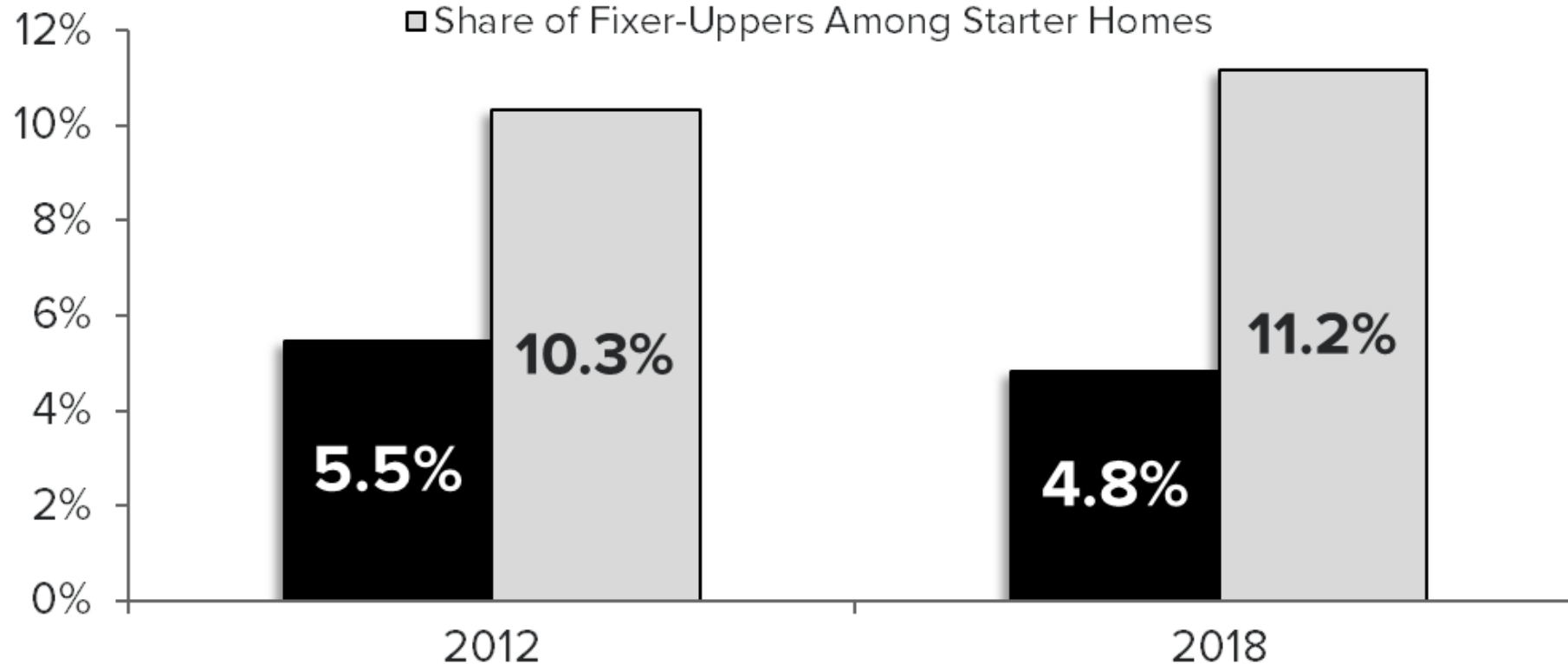
On the whole, the available stock of starter homes are both significantly older than the average of all homes, but also far older than they used to be.

Since 2012, the average age of a starter level home has increased +9.2 years, whereas the average home has increased in age only +5.0 years as the mix of new construction aims more towards the trade up market.

NO, THEY'VE AGED MORE LIKE MILK

Share of Fixer-Uppers: All Homes vs Starter

- Share of Fixer-Uppers Among All Homes
- Share of Fixer-Uppers Among Starter Homes



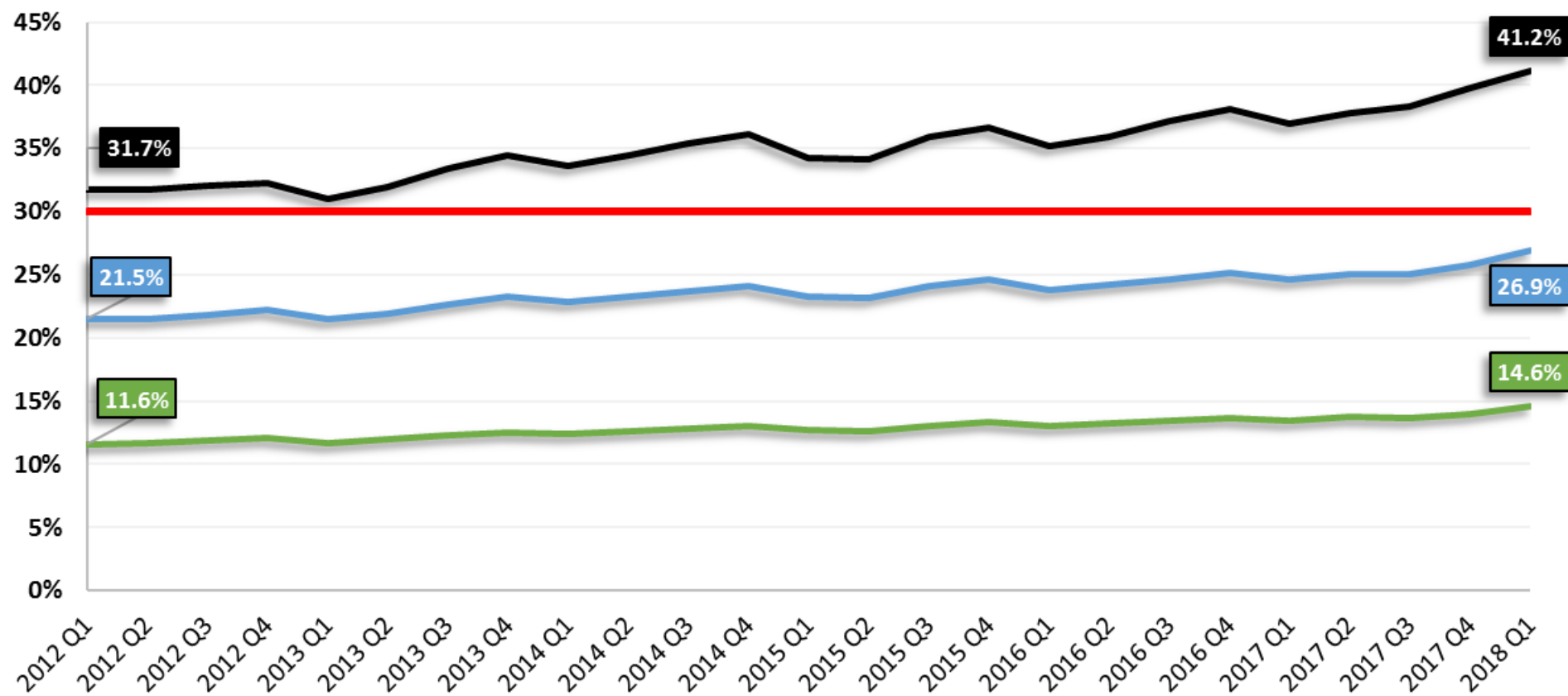
Whereas the national average percentage of homes classified as “Fixer-Uppers” has declined over the past 6 years by -70bps, it has increased by +90bps for starter homes.

For a new entry level homebuyer: the supply pool continues to shrink, grow more expensive and in increasing need of renovation.

OLDER, WORSE, AND MORE UNAFFORDABLE

Percentage of Income Needed to Buy Median Priced Home, By Price Tier

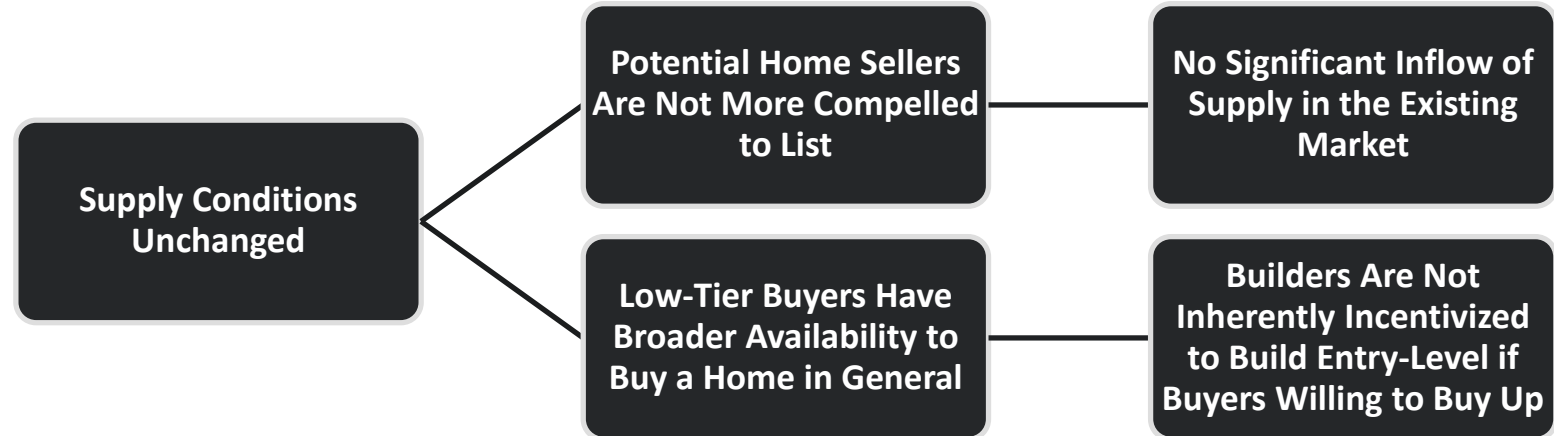
— % of Income Needed to Buy Median Priced Starter Home — % of Income Needed to Buy Median Priced Trade-Up Home
— % of Income Needed to Buy Median Priced Premium Home — Maximum Percent Recommended



Unsurprisingly, acute supply tightness at the entry level has driven premium price growth at and declining affordability.

A TREE OF OUTCOMES

SUPPLY:



DEMAND:



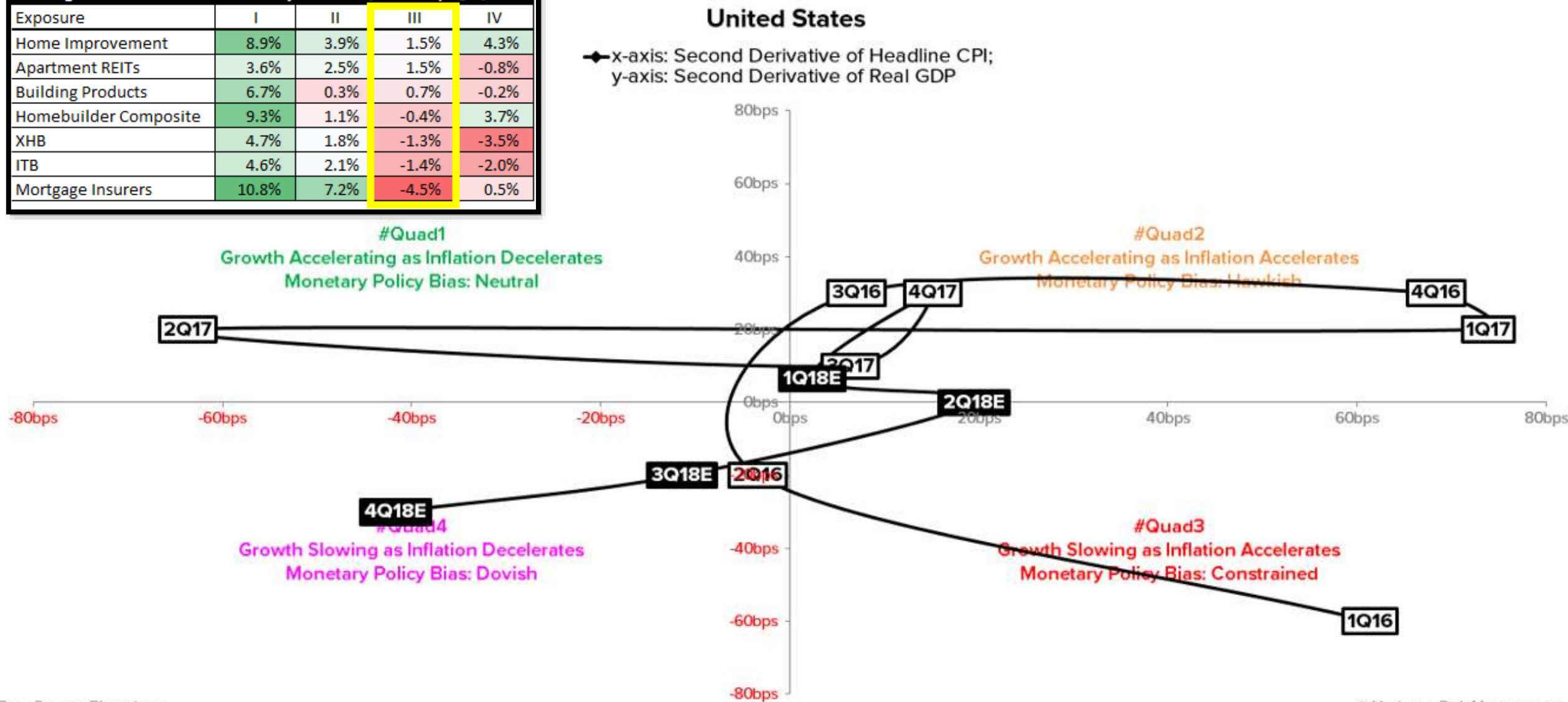


FISHFINDER



MACRO OVERLAY = QUAD2/3

Avg Historical Performance by Macro Quadrant, Q/Q %				
Exposure	I	II	III	IV
Home Improvement	8.9%	3.9%	1.5%	4.3%
Apartment REITs	3.6%	2.5%	1.5%	-0.8%
Building Products	6.7%	0.3%	0.7%	-0.2%
Homebuilder Composite	9.3%	1.1%	-0.4%	3.7%
XHB	4.7%	1.8%	-1.3%	-3.5%
ITB	4.6%	2.1%	-1.4%	-2.0%
Mortgage Insurers	10.8%	7.2%	-4.5%	0.5%



HOUSING: STYLE FACTOR PERFORMANCE

SPX: STYLE FACTOR PERFORMANCE*

	FACTOR	3M % Chg	6M % Chg	12M % Chg
DEBT	High Debt/EV	-6.4%	-1.4%	-1.7%
	Low Debt/EV	-2.0%	11.9%	27.5%
SI	High Short Interest	-4.6%	6.2%	4.4%
	Low Short Interest	-3.4%	5.2%	19.6%
BETA	High Beta	-5.3%	7.3%	18.9%
	Low Beta	-0.9%	1.4%	3.3%
YIELD	High Yield	-6.0%	-4.2%	-4.6%
	Low Yield	-2.9%	9.5%	22.5%
MKT CAP	MCAP Bottom 25%	-6.7%	0.4%	3.2%
	MCAP Top 25%	-3.4%	5.7%	19.2%
Sales Growth	Top 25% Sales Growth	-2.9%	6.7%	20.0%
	Bottom 25% Sales Growth	-5.2%	3.1%	4.2%
EPS Growth	Top 25% EPS Growth	-4.5%	5.6%	16.2%
	Bottom 25% EPS Growth	-3.0%	3.8%	7.4%

GREEN = Relative Outperformance Over Given Duration

*Mean Performance of Top Quartile vs. Bottom Quartile, S&P500 Companies

HOUSING: STYLE FACTOR PERFORMANCE*

	FACTOR	3M % Chg	6M % Chg	12M % Chg
DEBT	High Debt/EV	-7.4%	-0.9%	10.9%
	Low Debt/EV	-10.3%	3.5%	17.3%
SI	High Short Interest	-11.9%	2.3%	18.1%
	Low Short Interest	-8.3%	0.7%	10.6%
BETA	High Beta	-12.6%	1.6%	17.7%
	Low Beta	-5.5%	1.4%	11.3%
YIELD	High Yield	-6.2%	-1.4%	10.6%
	Low Yield	-12.5%	2.8%	16.4%
MKT CAP	MCAP Bottom 25%	-12.9%	0.1%	12.0%
	MCAP Top 25%	-4.8%	2.6%	16.2%
Sales Growth	Top 25% Sales Growth	-10.2%	5.1%	23.7%
	Bottom 25% Sales Growth	-6.9%	-1.7%	6.8%
EPS Growth	Top 25% EPS Growth	-8.0%	5.0%	18.2%
	Bottom 25% EPS Growth	-9.6%	-2.7%	9.2%

*Mean Performance of Top Half vs. Bottom Half of companies for given style factor

Sector Style Factor Exposure Ranking

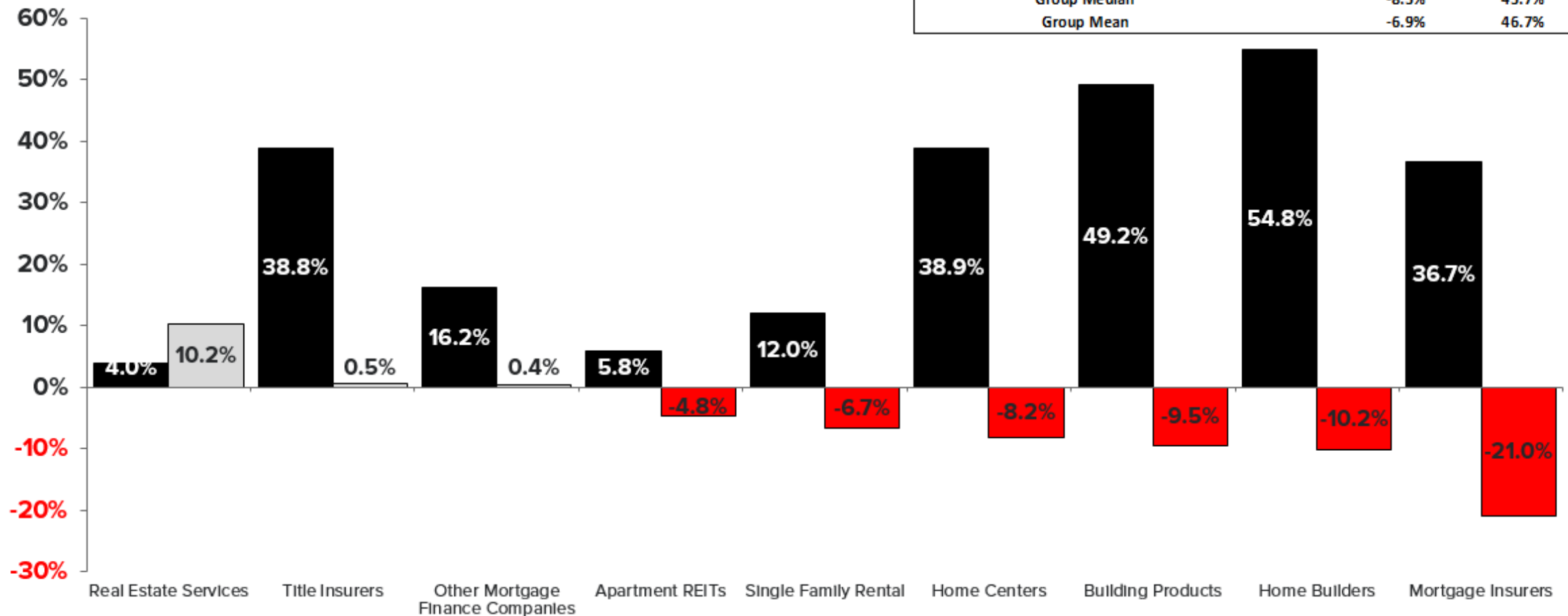
SECTOR	FACTOR SCORE
Home Centers	21.00
Building Products	20.00
Apartment REITs	17.00
Title Insurers	17.00
Other Mortgage Finance	17.00
Mortgage Insurers	17.00
SF Rental	11.00
Real Estate Services	9.00
Home Builders	6.00

Style Factor Exposure to:
Growth, Market Cap & Quality

YTD PERFORMANCE

Performance By SubSector

■ CY17 Return □ CY18 YTD Return



Indices and ETFs			
Company	Ticker	CY18 YTD Return	CY17 Return
S&P 500 INDEX	SPX	-1.7%	21.8%
SPDR S&P HOMEBUILDERS ETF	XHB	-8.4%	31.8%
S&P 500 HOMEBUILDING INDEX	S5HOME	-8.5%	73.3%
ISHARES U.S. HOME CONSTRUCTION ETF	ITB	-8.9%	59.7%
Group Median		-8.5%	45.7%
Group Mean		-6.9%	46.7%

SENTIMENT SCORING

Home Builders			
Company	Ticker	Sentiment Score	YTD Return
HOVANNIAN ENTERPRISES	HOV	6	-48.2%
KBI HOME	KBH	8	-11.3%
PLUEGROUP	PHM	21	-10.3%
NEW HOME CO	NWHM	22	-13.2%
MDC HOLDINGS	MDC	30	-8.8%
TOLL BROTHERS	TOL	31	-9.8%
WILLIAM LYON HOMES	WLH	32	-1.0%
TRI POINTE GROUP	TPH	34	-5.6%
NVR	NVH	37	-9.5%
MERITAGE HOMES	MTH	37	-10.4%
TAYLOR MORRISON HOME	TMHC	41	-4.5%
BEAZER HOMES	BZH	47	-14.3%
DR HORTON	DHI	56	-11.2%
LENNAR	LEN	61	-5.0%
FIVE POINT HOLDINGS	FPH	74	-1.7%
M/I HOMES	MHO	87	-0.5%
Group Median		35	-9.7%
Group Mean		39	-9.9%

Home Centers			
Company	Ticker	Sentiment Score	YTD Return
LOWE'S COS	LOW	83	-6.2%
HOME DEPOT	HD	88	-8.5%
Group Median		85	-7.4%
Group Mean		85	-7.4%

Other Mortgage Finance Companies			
Company	Ticker	Sentiment Score	YTD Return
CORELOGIC	CLOK	34	-2.3%
ELLIE MAE	ELM	35	6.2%
Group Median		34	1.9%
Group Mean		34	1.9%

Apartment REITs			
Company	Ticker	Sentiment Score	YTD Return
ESSEX PROPERTY TRUST	ESS	46	0.2%
EQUITY RESIDENTIAL	EQH	47	-1.7%
APARTMENT INVT & MGMT	AIN	47	-5.7%
UDR	UDR	49	-7.1%
AVALONBAY COMMUNITIES	AVB	55	-6.5%
CAMDEN PROPERTY TRUST	CPT	63	-7.5%
MID-AMERICA APARTMENT COMMUNITIES	MAA	73	-8.3%
Group Median		49	-6.5%
Group Mean		54	-5.2%

Building Products			
Company	Ticker	Sentiment Score	YTD Return
USG	USG	18	2.9%
ARMSTRONG WORLD INDUSTRIES	AWI	27	-7.4%
ARMSTRONG FLOORING	AFI	45	-18.5%
FORTUNE BRANDS HOME & SECURITY	FBHS	51	-14.2%
PLY GEM HOLDINGS	PGEM	52	-17.0%
INSTALLED BUILDING PRODUCTS	IBP	53	-26.2%
OWENS CORNING	OC	56	-11.7%
MASCO	MAS	57	-7.1%
AMERICAN WOODMARK	AMWD	63	-26.3%
SHERWIN-WILLIAMS	SHW	72	-5.3%
STANLEY BLACK & DECKER	SWK	80	-10.5%
MOHAWK INDUSTRIES	MHK	82	-13.4%
TOPBUILD	TBD	88	7.0%
Group Median		56	-10.5%
Group Mean		57	-9.1%

Mortgage Insurers			
Company	Ticker	Sentiment Score	YTD Return
NMI HOLDINGS	NMHI	82	-18.8%
RADIAN GROUP	RDN	82	-21.3%
MAGIC INVESTMENT	MTG	88	-23.0%
ESSENT GROUP	ESNT	89	-17.2%
Group Median		85	-20.1%
Group Mean		85	-20.1%

Real Estate Services			
Company	Ticker	Sentiment Score	YTD Return
REALOGY HOLDINGS	RLGY	19	4.2%
REDFIN	RFN	21	-27.6%
RE/MAX HOLDINGS	RMAX	27	-22.1%
ZILLOW GROUP INC - C	Z	30	30.9%
ZILLOW GROUP INC - A	ZG	42	31.9%
Group Median		27	22.1%
Group Mean		28	12.3%

Single Family Rental			
Company	Ticker	Sentiment Score	YTD Return
INVITATION HOMES	INVH	57	-3.5%
AMERICAN HOMES 4 RENT	AMH	72	-8.9%
Group Median		65	-6.2%
Group Mean		65	-6.2%

Title Insurers			
Company	Ticker	Sentiment Score	YTD Return
STEWART INFORMATION SERVICES	STC	51	3.5%
FIRST AMERICAN FINANCIAL	FAF	63	-0.2%
FIDELITY NATIONAL FINANCIAL	FNF	75	-2.6%
Group Median		63	-0.2%
Group Mean		63	0.2%

High sentiment scores generally correspond to stocks at risk of downside due to consensus bullishness, whereas those stocks with low sentiment scores have the potential to outperform based on consensus bearishness.

YTD PERFORMANCE BY STOCK

Home Builders			
Company	Ticker	CY18 YTD Return	CY17 Return
FIVE POINT HOLDINGS	FPH	3.4%	N/A
WILLIAM LYON HOMES	WLH	-1.5%	52.8%
M/I HOMES	MHO	-2.5%	36.6%
LENNAR	LEN	-3.8%	48.0%
TAYLOR MORRISON HOME	TMHC	-5.6%	27.1%
TRI POINTE GROUP	TPH	-6.0%	56.1%
MDC HOLDINGS	MDC	-8.8%	38.6%
PULTEGROUP	PHM	-9.9%	83.4%
TOLL BROTHERS	TOL	-10.3%	55.8%
KB HOME	KBH	-10.4%	103.0%
NVR	NVR	-11.2%	110.2%
DR HORTON	DHI	-11.5%	89.1%
MERITAGE HOMES	MTH	-12.0%	47.1%
NEW HOME CO	NWHM	-13.6%	7.0%
BEAZER HOMES	BZH	-16.2%	44.4%
HOVNANIAN ENTERPRISES	HOV	-42.7%	22.7%
Group Median		-10.1%	48.0%
Group Mean		-10.2%	54.8%

Home Centers			
Company	Ticker	CY18 YTD Return	CY17 Return
LOWE'S COS	LOW	-7.9%	33.3%
HOME DEPOT	HD	-8.5%	44.6%
Group Median		-8.2%	38.9%
Group Mean		-8.2%	38.9%

Other Mortgage Finance Companies			
Company	Ticker	CY18 YTD Return	CY17 Return
ELLIE MAE	ELLI	4.1%	6.8%
CORELOGIC	CLGX	-3.3%	25.5%
Group Median		0.4%	16.2%
Group Mean		0.4%	16.2%

Building Products			
Company	Ticker	CY18 YTD Return	CY17 Return
PLY GEM HOLDINGS	PGEM	16.8%	13.8%
USG	USG	2.9%	33.5%
TOPBUILD	BLD	2.1%	112.8%
SHERWIN-WILLIAMS	SHW	-4.9%	54.1%
ARMSTRONG WORLD INDUSTRIES	AWI	-7.8%	44.9%
MASCO	MA5	-8.3%	40.5%
STANLEY BLACK & DECKER	SWK	-11.5%	50.5%
OWENS CORNING	OC	-13.1%	80.3%
MOHAWK INDUSTRIES	MHK	-14.7%	38.2%
FORTUNE BRANDS HOME & SECURITY	FBHS	-14.7%	29.5%
ARMSTRONG FLOORING	AFI	-18.8%	-15.0%
INSTALLED BUILDING PRODUCTS	IBP	-23.8%	83.9%
AMERICAN WOODMARK	AMWD	-27.3%	73.1%
Group Median		-11.5%	44.9%
Group Mean		-9.5%	49.2%

Mortgage Insurers			
Company	Ticker	CY18 YTD Return	CY17 Return
ESSENT GROUP	ESNT	-18.0%	34.1%
NMI HOLDINGS	NMIH	-19.4%	59.6%
RADIAN GROUP	RDN	-21.8%	14.7%
MGIC INVESTMENT	MTG	-24.7%	38.5%
Group Median		-20.6%	36.3%
Group Mean		-21.0%	36.7%

Real Estate Services			
Company	Ticker	CY18 YTD Return	CY17 Return
ZILLOW GROUP INC - A	ZG	27.6%	11.8%
ZILLOW GROUP INC - C	Z	26.4%	12.2%
RE/MAX HOLDINGS	RMAX	22.2%	-12.3%
REALOGY HOLDINGS	RLGY	3.2%	4.3%
REDFIN	RDFN	-28.5%	N/A
Group Median		22.2%	8.0%
Group Mean		10.2%	4.0%

Single Family Rental			
Company	Ticker	CY18 YTD Return	CY17 Return
INVITATION HOMES	INVH	-3.8%	19.0%
AMERICAN HOMES 4 RENT	AMH	-9.6%	5.0%
Group Median		-6.7%	12.0%
Group Mean		-6.7%	12.0%

Title Insurers			
Company	Ticker	CY18 YTD Return	CY17 Return
STEWART INFORMATION SERVICES	STC	3.8%	-5.5%
FIRST AMERICAN FINANCIAL	FAF	-0.3%	57.9%
FIDELITY NATIONAL FINANCIAL	FNF	-2.0%	64.0%
Group Median		-0.3%	57.9%
Group Mean		0.5%	38.8%

Apartment REITs			
Company	Ticker	CY18 YTD Return	CY17 Return
ESSEX PROPERTY TRUST	ESS	0.8%	6.8%
EQUITY RESIDENTIAL	EQR	-1.4%	2.2%
APARTMENT INVT & MGMT	AIV	-5.2%	-0.7%
UDR	UDR	-6.0%	9.1%
AVALONBAY COMMUNITIES	AVB	-6.5%	3.9%
CAMDEN PROPERTY TRUST	CPT	-7.3%	13.3%
MID-AMERICA APARTMENT COMMUNITIES	MAA	-7.7%	6.3%
Group Median		-6.0%	6.3%
Group Mean		-4.8%	5.8%

AVERAGE RATING

Home Builders				
Company	Ticker	Number of Ratings	Average Rating	Rating Distribution
M/I HOMES	MHO	2	1.00	2-0-0
LENNAR	LEN	22	0.86	19-3-0
FIVE POINT HOLDINGS	FPH	7	0.57	4-3-0
DR HORTON	DHI	23	0.57	13-10-0
TRI POINTE GROUP	TPH	11	0.55	6-5-0
BEAZER HOMES	BZH	4	0.50	2-2-0
TAYLOR MORRISON HOME	TMHC	11	0.45	5-6-0
MERITAGE HOMES	MTH	12	0.42	5-7-0
TOLL BROTHERS	TOL	22	0.41	10-11-1
WILLIAM LYON HOMES	WLH	5	0.40	2-3-0
PULTEGROUP	PHM	21	0.29	7-13-1
NVR	NVR	8	0.13	1-7-0
NEW HOME CO	NWHM	3	0.00	0-3-0
MDC HOLDINGS	MDC	12	0.00	2-8-2
KB HOME	KBH	21	-0.24	1-14-6
HOVNANIAN ENTERPRISES	HOV	2	-1.00	0-0-2
Group Median		11	0.41	
Group Mean		12	0.31	

Home Centers				
Company	Ticker	Number of Ratings	Average Rating	Rating Distribution
LOWE'S COS	LOW	33	0.76	25-8-0
HOME DEPOT	HD	35	0.71	25-10-0
Group Median		34	0.74	
Group Mean		34	0.74	

Other Mortgage Finance Companies				
Company	Ticker	Number of Ratings	Average Rating	Rating Distribution
ELLIE MAE	ELLI	14	0.57	9-4-1
CORELOGIC	CLGX	10	0.10	3-5-2
Group Median		12	0.34	
Group Mean		12	0.34	

Building Products				
Company	Ticker	Number of Ratings	Average Rating	Rating Distribution
AMERICAN WOODMARK	AMWD	3	1.00	3-0-0
TOPBUILD	BLD	7	0.86	6-1-0
MOHAWK INDUSTRIES	MHK	22	0.82	18-4-0
INSTALLED BUILDING PRODUCTS	IBP	9	0.78	7-2-0
STANLEY BLACK & DECKER	SWK	23	0.70	16-7-0
SHERWIN-WILLIAMS	SHW	26	0.65	17-9-0
MASCO	MAS	24	0.63	15-9-0
OWENS CORNING	OC	22	0.59	13-9-0
FORTUNE BRANDS HOME & SECURITY	FBHS	21	0.52	11-10-0
PLY GEM HOLDINGS	PGEM	5	0.20	1-4-0
USG	USG	17	0.18	4-12-1
ARMSTRONG WORLD INDUSTRIES	AWI	13	0.15	4-7-2
ARMSTRONG FLOORING	AFI	5	0.00	0-5-0
Group Median		17	0.63	
Group Mean		15	0.54	

Mortgage Insurers				
Company	Ticker	Number of Ratings	Average Rating	Rating Distribution
NMI HOLDINGS	NMIH	6	1.00	6-0-0
MGIC INVESTMENT	MTG	13	0.77	10-3-0
ESSENT GROUP	ESNT	13	0.77	10-3-0
RADIAN GROUP	RDN	13	0.62	8-5-0
Group Median		13	0.77	
Group Mean		11	0.79	

Real Estate Services				
Company	Ticker	Number of Ratings	Average Rating	Rating Distribution
ZILLOW GROUP INC - C	Z	8	0.50	4-4-0
ZILLOW GROUP INC - A	ZG	21	0.48	10-11-0
REDFIN	RDFN	12	0.42	6-5-1
REALOGY HOLDINGS	RLGY	10	0.40	6-2-2
RE/MAX HOLDINGS	RMAX	9	0.00	2-5-2
Group Median		10	0.42	
Group Mean		12	0.36	

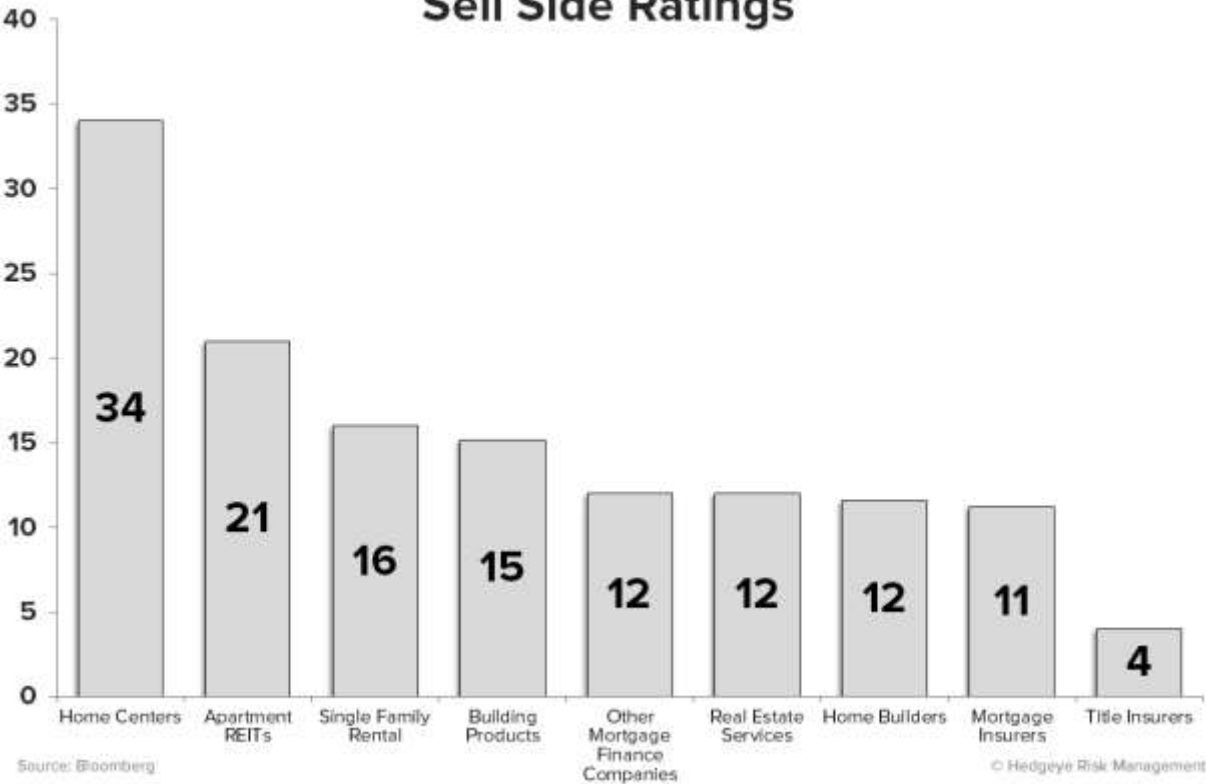
Single Family Rental				
Company	Ticker	Number of Ratings	Average Rating	Rating Distribution
INVITATION HOMES	INVH	17	0.94	16-1-0
AMERICAN HOMES 4 RENT	AMH	15	0.80	12-3-0
Group Median		16	0.87	
Group Mean		16	0.87	

Title Insurers				
Company	Ticker	Number of Ratings	Average Rating	Rating Distribution
FIDELITY NATIONAL FINANCIAL	FNF	5	0.80	4-1-0
FIRST AMERICAN FINANCIAL	FAF	5	0.60	3-2-0
STEWART INFORMATION SERVICES	STC	2	0.00	0-2-0
Group Median		5	0.60	
Group Mean		4	0.47	

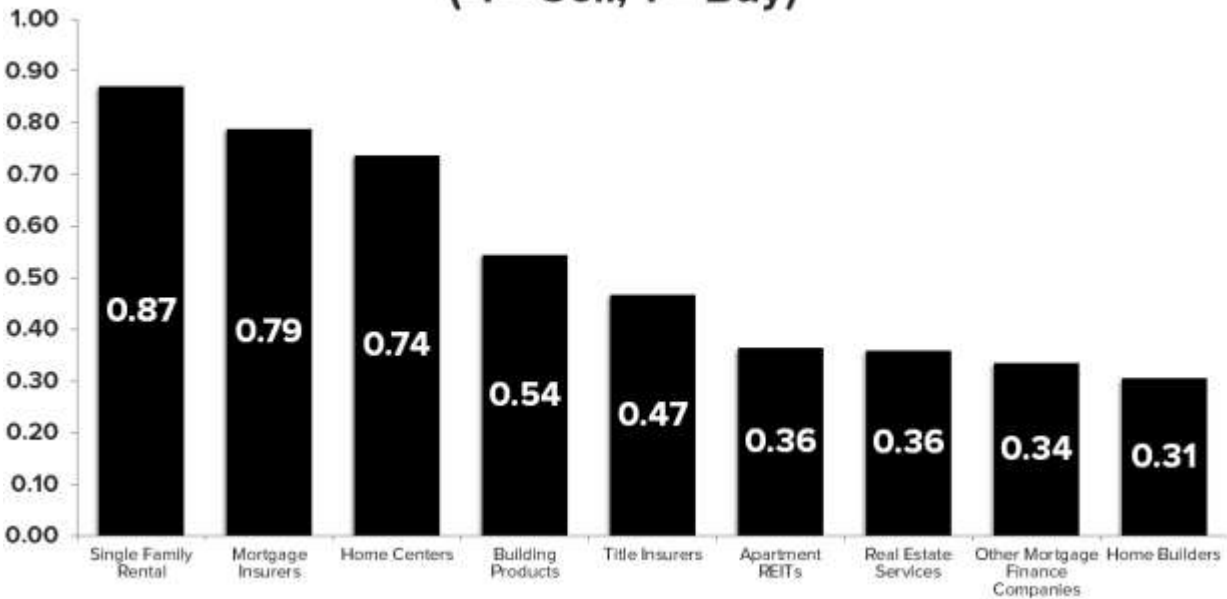
Apartment REITs				
Company	Ticker	Number of Ratings	Average Rating	Rating Distribution
MID-AMERICA APARTMENT COMMUNITIES	MAA	18	0.50	9-9-0
CAMDEN PROPERTY TRUST	CPT	21	0.48	10-11-0
AVALONBAY COMMUNITIES	AVB	24	0.46	11-13-0
ESSEX PROPERTY TRUST	ESS	25	0.44	12-12-1
APARTMENT INVT & MGMT	AIV	16	0.31	5-11-0
EQUITY RESIDENTIAL	EQR	24	0.21	6-17-1
UDR	UDR	19	0.16	3-16-0
Group Median		21	0.44	
Group Mean		21	0.36	

SUBSECTOR STREET POSITIONING

Average Number of
Sell Side Ratings



Average Sell Side Rating
(-1 = Sell; 1 = Buy)



CURRENT SHORT INTEREST

Home Builders			
Company	Ticker	Current Short Interest	Short Interest- Jan 1
FIVE POINT HOLDINGS	FPH	1.7%	0.7%
M/I HOMES	MHO	2.1%	3.7%
NVR	NVR	2.6%	2.3%
DR HORTON	DHI	2.8%	3.2%
MDC HOLDINGS	MDC	2.9%	3.6%
BEAZER HOMES	BZH	3.3%	3.3%
TAYLOR MORRISON HOME	TMHC	3.5%	1.9%
MERITAGE HOMES	MTH	4.3%	3.1%
NEW HOME CO	NWHM	4.5%	1.2%
WILLIAM LYON HOMES	WLH	4.6%	2.3%
LENNAR	LEN	4.8%	8.8%
TOLL BROTHERS	TOL	5.1%	5.9%
PULTEGROUP	PHM	6.9%	6.6%
KB HOME	KBH	9.3%	12.4%
HOVNANIAN ENTERPRISES	HOV	9.4%	6.3%
TRI POINTE GROUP	TPH	11.1%	11.0%
Group Median		4.4%	3.4%
Group Mean		4.9%	4.8%

Home Centers			
Company	Ticker	Current Short Interest	Short Interest- Jan 1
HOME DEPOT	HD	0.8%	1.0%
LOWE'S COS	LOW	1.5%	1.2%
Group Median		1.1%	1.1%
Group Mean		1.1%	1.1%

Other Mortgage Finance Companies			
Company	Ticker	Current Short Interest	Short Interest- Jan 1
CORELOGIC	CLGX	2.7%	1.6%
ELLIE MAE	ELJ	12.1%	11.8%
Group Median		7.4%	6.7%
Group Mean		7.4%	6.7%

Building Products			
Company	Ticker	Current Short Interest	Short Interest- Jan 1
STANLEY BLACK & DECKER	SWK	1.6%	1.4%
TOPBUILD	BLD	1.8%	1.6%
PLY GEM HOLDINGS	PGEM	2.0%	0.9%
ARMSTRONG FLOORING	AFI	2.1%	3.2%
MOHAWK INDUSTRIES	MHK	2.1%	1.5%
SHERWIN-WILLIAMS	SHW	2.2%	1.2%
OWENS CORNING	OC	2.9%	3.4%
FORTUNE BRANDS	FBHS	3.0%	3.1%
MASCO	MAS	3.0%	2.2%
ARMSTRONG WORLD INDUSTRIES	AWI	3.5%	2.3%
AMERICAN WOODMARK	AMWD	5.1%	1.6%
INSTALLED BUILDING PRODUCTS	IBP	5.4%	4.7%
USG	USG	8.9%	8.2%
Group Median		2.9%	2.2%
Group Mean		3.4%	2.7%

Mortgage Insurers			
Company	Ticker	Current Short Interest	Short Interest- Jan 1
ESSENT GROUP	ESNT	1.1%	0.8%
RADIAN GROUP	RDN	1.1%	1.0%
MGIC INVESTMENT	MTG	1.2%	1.1%
NMI HOLDINGS	NMIH	2.4%	2.2%
Group Median		1.1%	1.0%
Group Mean		1.4%	1.3%

Real Estate Services			
Company	Ticker	Current Short Interest	Short Interest- Jan 1
RE/MAX HOLDINGS	RMAX	3.1%	3.3%
ZILLOW GROUP INC - A	ZG	3.8%	5.0%
ZILLOW GROUP INC - C	Z	14.0%	15.9%
REALOGY HOLDINGS	RLGY	15.4%	9.9%
REDFIN	RDFN	19.2%	42.0%
Group Median		14.0%	9.9%
Group Mean		11.1%	15.2%

Single Family Rental			
Company	Ticker	Current Short Interest	Short Interest- Jan 1
AMERICAN HOMES 4 RENT	AMH	2.7%	2.1%
INVITATION HOMES	INVH	6.6%	7.2%
Group Median		4.7%	4.6%
Group Mean		4.7%	4.6%

Title Insurers			
Company	Ticker	Current Short Interest	Short Interest- Jan 1
STEWART INFORMATION SERVICES	STC	1.5%	1.5%
FIDELITY NATIONAL FINANCIAL	FNF	2.5%	1.9%
FIRST AMERICAN FINANCIAL	FAF	2.6%	2.5%
Group Median		2.5%	1.9%
Group Mean		2.2%	1.9%

Apartment REITs			
Company	Ticker	Current Short Interest	Short Interest- Jan 1
MID-AMERICA APARTMENT	MAA	1.3%	1.8%
UDR	UDR	2.1%	1.7%
CAMDEN PROPERTY TRUST	CPT	2.1%	3.8%
EQUITY RESIDENTIAL	EQR	2.3%	1.9%
APARTMENT INVT & MGMT	AIV	2.3%	2.2%
AVALONBAY COMMUNITIES	AVB	2.3%	2.5%
ESSEX PROPERTY TRUST	ESS	2.8%	2.4%
Group Median		2.3%	2.2%
Group Mean		2.2%	2.3%

SHORT INTEREST DELTA

Home Builders				
Company	Ticker	Current Short Interest	Short Interest- Jan 1	Delta
LENAR	LEN	4.8%	8.8%	-3.9%
KB HOME	KSH	9.3%	12.4%	-3.0%
M/I HOMES	MHO	2.1%	3.7%	-1.6%
TOLL BROTHERS	TOL	5.1%	5.9%	-0.8%
MDC HOLDINGS	MDC	2.9%	3.6%	-0.7%
DR HORTON	DHI	2.8%	3.2%	-0.4%
BEAZER HOMES	BZH	3.3%	3.3%	0.0%
TRI PONTE GROUP	TPH	11.1%	11.0%	0.1%
NVR	NVR	2.6%	2.3%	0.3%
PULTEGROUP	PHM	6.9%	6.6%	0.3%
FIVE POINT HOLDINGS	FPH	1.7%	0.7%	1.0%
MERITAGE HOMES	MTH	4.3%	3.1%	1.2%
TAYLOR MORRISON HOME	TMHC	3.5%	1.9%	1.5%
WILLIAM LYON HOMES	WLH	4.6%	2.3%	2.3%
HOVNANIAN ENTERPRISES	HOV	9.4%	6.3%	3.1%
NEW HOME CO	NWHM	4.5%	1.2%	3.3%
Group Median		4.4%	3.4%	0.2%
Group Mean		4.9%	4.8%	0.2%

Home Centers				
Company	Ticker	Current Short Interest	Short Interest- Jan 1	Delta
HOME DEPOT	HD	0.8%	1.0%	-0.2%
LOWE'S COS	LOW	1.5%	1.2%	0.3%
Group Median		1.1%	1.1%	0.0%
Group Mean		1.1%	1.1%	0.0%

Other Mortgage Finance Companies				
Company	Ticker	Current Short Interest	Short Interest- Jan 1	Delta
ELLIE MAE	ELI	12.1%	11.8%	0.3%
CORELOGIC	CLGX	2.7%	1.6%	1.1%
Group Median		7.4%	6.7%	0.7%
Group Mean		7.4%	6.7%	0.7%

Apartment REITs				
Company	Ticker	Current Short Interest	Short Interest- Jan 1	Delta
CAMDEN PROPERTY TRUST	CPT	2.1%	3.8%	-1.7%
AVALONBAY COMMUNITIES	AVB	2.3%	2.5%	-0.2%
MID-AMERICA APARTMENT COMMUNITIES	MAA	1.3%	1.8%	-0.5%
EQUITY RESIDENTIAL	EQR	2.3%	1.9%	0.4%
APARTMENT INVT & MGMT	AIV	2.3%	2.2%	0.1%
UDR	UDR	2.1%	1.7%	0.4%
ESSEX PROPERTY TRUST	ESS	2.8%	2.4%	0.4%
Group Median		2.3%	2.2%	0.1%
Group Mean		2.2%	2.3%	-0.2%

Building Products				
Company	Ticker	Current Short Interest	Short Interest- Jan 1	Delta
INSTALLED BUILDING PRODUCTS	IBP	5.4%	4.7%	0.7%
USG	USG	8.9%	8.2%	0.6%
ARMSTRONG FLOORING	AFI	2.1%	3.2%	-1.2%
OWENS CORNING	OC	2.9%	3.4%	-0.5%
STANLEY BLACK & DECKER	SWK	1.6%	1.4%	0.2%
AMERICAN WOODMARK	AMWD	5.1%	1.6%	3.5%
ARMSTRONG WORLD INDUSTRIES	AWI	5.5%	2.3%	3.1%
FORTUNE BRANDS HOME & SECURITY	FBHS	3.0%	3.1%	-0.1%
MASCO	MAS	3.0%	2.2%	0.9%
PLY GEM HOLDINGS	PGEM	2.0%	0.9%	1.1%
TOPBUILD	BLD	1.8%	1.6%	0.2%
MOHAWK INDUSTRIES	MHK	2.1%	1.5%	0.6%
SHERWIN-WILLIAMS	SHW	2.2%	1.2%	1.0%
Group Median		2.9%	2.2%	0.6%
Group Mean		3.4%	2.7%	0.6%

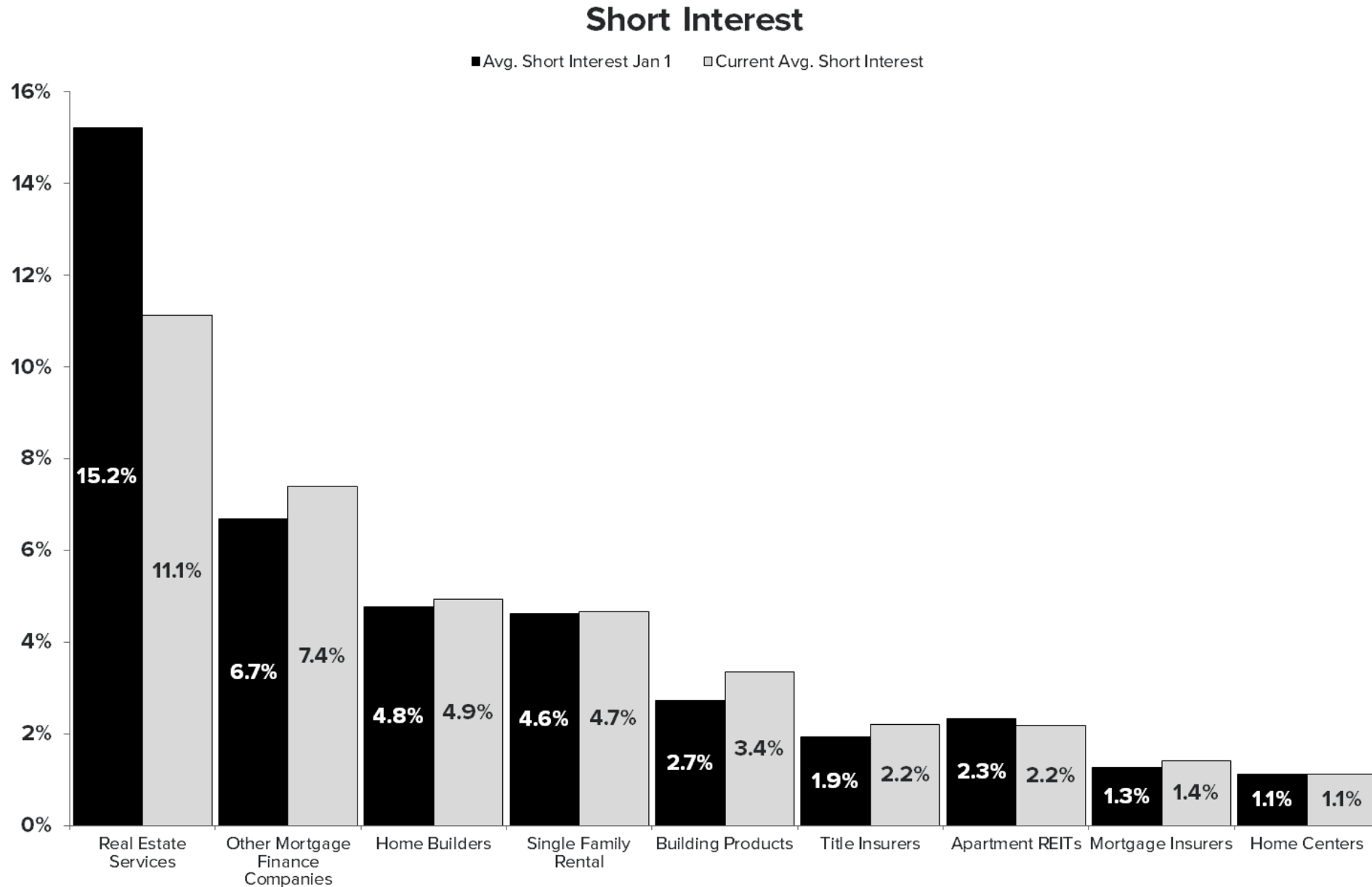
Mortgage Insurers				
Company	Ticker	Current Short Interest	Short Interest- Jan 1	Delta
ESSENT GROUP	ESNT	1.1%	0.8%	0.3%
RADIAN GROUP	RDN	1.1%	1.0%	0.1%
MGC INVESTMENT	MTG	1.2%	1.1%	0.1%
NMI HOLDINGS	NMIH	2.4%	2.2%	0.2%
Group Median		1.1%	1.0%	0.1%
Group Mean		1.4%	1.3%	0.2%

Real Estate Services				
Company	Ticker	Current Short Interest	Short Interest- Jan 1	Delta
REDFIN	RDFN	19.2%	42.0%	-22.7%
ZILLOW GROUP INC - C	Z	14.0%	15.9%	-1.9%
ZILLOW GROUP INC - A	ZG	3.8%	5.0%	-1.2%
RE/MAX HOLDINGS	RMAX	3.1%	3.3%	-0.2%
REALOGY HOLDINGS	RLGY	15.4%	9.9%	5.6%
Group Median		14.0%	9.9%	-1.2%
Group Mean		11.1%	15.2%	-4.1%

Single Family Rental				
Company	Ticker	Current Short Interest	Short Interest- Jan 1	Delta
INVITATION HOMES	INVH	6.6%	7.2%	-0.5%
AMERICAN HOMES 4 RENT	AMH	2.7%	2.1%	0.6%
Group Median		4.7%	4.6%	0.0%
Group Mean		4.7%	4.6%	0.0%

Title Insurers				
Company	Ticker	Current Short Interest	Short Interest- Jan 1	Delta
FIRST AMERICAN FINANCIAL	FAF	2.6%	2.3%	0.1%
FIDELITY NATIONAL FINANCIAL	FNH	2.5%	1.9%	0.6%
STEWART INFORMATION SERVICES	STC	1.5%	1.5%	0.0%
Group Median		2.5%	1.9%	0.1%
Group Mean		2.2%	1.9%	0.3%

SHORT INTEREST BY SUBSECTOR



DAYS TO COVER

Home Builders

Company	Ticker	Current Days to Cover	Days to Cover- Jan 1
BEAZER HOMES	BZH	2.4x	2.7x
MDC HOLDINGS	MDC	2.5x	4.9x
DR HORTON	DHI	2.9x	4.6x
KB HOME	KBH	2.9x	7.3x
NVR	NVR	2.9x	3.7x
M/I HOMES	MHO	3.4x	7.7x
TAYLOR MORRISON HOME	TMHC	3.7x	2.7x
MERITAGE HOMES	MTH	3.7x	2.8x
WILLIAM LYON HOMES	WLH	3.8x	1.5x
TOLL BROTHERS	TOL	3.9x	4.7x
LENNAR	LEN	4.4x	6.6x
PULTEGROUP	PHM	4.4x	5.7x
HOVNIANIAN ENTERPRISES	HOV	5.6x	2.2x
FIVE POINT HOLDINGS	FPH	7.3x	2.5x
NEW HOME CO	NWHM	8.0x	1.4x
TRI POINTE GROUP	TPH	12.5x	13.9x
Group Median		3.8x	4.1x
Group Mean		4.6x	4.7x

Home Centers

Company	Ticker	Current Days to Cover	Days to Cover- Jan 1
LOWE'S COS	LOW	1.3x	2.1x
HOME DEPOT	HD	1.7x	2.6x
Group Median		1.5x	2.4x
Group Mean		1.5x	2.4x

Other Mortgage Finance Companies

Company	Ticker	Current Days to Cover	Days to Cover- Jan 1
CORELOGIC	CLGX	6.4x	3.4x
ELLIE MAE	ELLI	7.6x	13.0x
Group Median		7.0x	8.2x
Group Mean		7.0x	8.2x

Building Products

Company	Ticker	Current Days to Cover	Days to Cover- Jan 1
PLY GEM HOLDINGS	PGEM	0.7x	2.5x
MOHAWK INDUSTRIES	MHK	1.8x	2.1x
STANLEY BLACK & DECKER	SWK	2.2x	3.3x
TOPBUILD	BLD	2.2x	1.9x
OWENS CORNING	OC	2.5x	4.3x
USG	USG	2.6x	7.6x
AMERICAN WOODMARK	AMWD	2.6x	2.5x
FORTUNE BRANDS	FBHS	3.0x	6.2x
MASCO	MAS	3.0x	3.2x
ARMSTRONG FLOORING	AFI	3.4x	3.6x
SHERWIN-WILLIAMS	SHW	3.6x	2.7x
ARMSTRONG WORLD INDUSTRIES	AWI	4.3x	3.1x
INSTALLED BUILDING PRODUCTS	IBP	4.7x	8.2x
Group Median		2.6x	3.2x
Group Mean		2.8x	3.9x

Mortgage Insurers

Company	Ticker	Current Days to Cover	Days to Cover- Jan 1
MGIC INVESTMENT	MTG	0.8x	1.5x
ESSENT GROUP	ESNT	1.0x	1.3x
RADIAN GROUP	RDN	1.0x	1.7x
NMI HOLDINGS	NMIH	1.5x	3.3x
Group Median		1.0x	1.6x
Group Mean		1.1x	1.9x

Real Estate Services

Company	Ticker	Current Days to Cover	Days to Cover- Jan 1
RE/MAX HOLDINGS	RMAX	4.6x	3.9x
ZILLOW GROUP INC - A	ZG	5.2x	12.3x
REDFIN	RDFN	5.6x	10.9x
REALOGY HOLDINGS	RLGY	9.9x	8.0x
ZILLOW GROUP INC - C	Z	11.4x	30.1x
Group Median		5.6x	10.9x
Group Mean		7.4x	13.0x

Single Family Rental

Company	Ticker	Current Days to Cover	Days to Cover- Jan 1
AMERICAN HOMES 4 RENT	AMH	3.8x	4.1x
INVITATION HOMES	INVH	7.8x	9.0x
Group Median		5.8x	6.6x
Group Mean		5.8x	6.6x

Title Insurers

Company	Ticker	Current Days to Cover	Days to Cover- Jan 1
STEWART INFORMATION SERVICES	STC	0.3x	3.1x
FIDELITY NATIONAL FINANCIAL	FNF	3.1x	3.6x
FIRST AMERICAN FINANCIAL	FAF	4.0x	6.4x
Group Median		3.1x	3.6x
Group Mean		2.5x	4.3x

Apartment REITs

Company	Ticker	Current Days to Cover	Days to Cover- Jan 1
MID-AMERICA APARTMENT	MAA	1.9x	4.0x
EQUITY RESIDENTIAL	EQR	2.4x	4.1x
APARTMENT INVT & MGMT	AIV	3.1x	3.8x
UDR	UDR	3.4x	3.5x
AVALONBAY COMMUNITIES	AVB	3.6x	6.1x
CAMDEN PROPERTY TRUST	CPT	3.7x	6.6x
ESSEX PROPERTY TRUST	ESS	5.0x	4.8x
Group Median		3.4x	4.1x
Group Mean		3.3x	4.7x

DAYS TO COVER DELTA

Home Builders				
Company	Ticker	Current Days to Cover	Days to Cover-Jan 1	Delta
KB HOME	KBH	2.9x	7.3x	-4.4x
M/I HOMES	MHO	3.4x	7.7x	-4.3x
MDC HOLDINGS	MDC	2.5x	4.9x	-2.5x
LENNAR	LEN	4.4x	6.6x	-2.2x
DR HORTON	DHI	2.9x	4.6x	-1.7x
TRI POINTE GROUP	TPH	12.5x	13.9x	-1.4x
PULTEGROUP	PHM	4.4x	5.7x	-1.3x
TOLL BROTHERS	TOL	3.9x	4.7x	-0.8x
NVR	NVR	2.9x	3.7x	-0.8x
BEAZER HOMES	BZH	2.4x	2.7x	-0.3x
MERITAGE HOMES	MTH	3.7x	2.8x	0.9x
TAYLOR MORRISON HOME	TMHC	3.7x	2.7x	1.0x
WILLIAM LYON HOMES	WLH	3.8x	1.5x	2.3x
HOVNANIAN ENTERPRISES	HOV	5.6x	2.2x	3.4x
FIVE POINT HOLDINGS	FPH	7.3x	2.5x	4.8x
NEW HOME CO	NWHM	8.0x	1.4x	6.6x
Group Median		3.8x	4.1x	-0.8x
Group Mean		4.6x	4.7x	0.0x

Home Centers				
Company	Ticker	Current Days to Cover	Days to Cover-Jan 1	Delta
HOME DEPOT	HD	1.7x	2.6x	-0.9x
LOWE'S COS	LOW	1.3x	2.1x	-0.8x
Group Median		1.5x	2.4x	-0.9x
Group Mean		1.5x	2.4x	-0.9x

Other Mortgage Finance Companies				
Company	Ticker	Current Days to Cover	Days to Cover-Jan 1	Delta
ELLIE MAE	ELLI	7.6x	13.0x	-5.4x
CORELOGIC	CLGX	6.4x	3.4x	3.1x
Group Median		7.0x	8.2x	-1.2x
Group Mean		7.0x	8.2x	-1.2x

Building Products				
Company	Ticker	Current Days to Cover	Days to Cover-Jan 1	Delta
USG	USG	2.6x	7.6x	-5.0x
INSTALLED BUILDING PRODUCTS	IBP	4.7x	8.2x	-3.5x
FORTUNE BRANDS	FBHS	3.0x	6.2x	-3.2x
OWENS CORNING	OC	2.5x	4.3x	-1.8x
PLY GEM HOLDINGS	PGEM	0.7x	2.5x	-1.8x
STANLEY BLACK & DECKER	SWK	2.2x	3.3x	-1.1x
MOHAWK INDUSTRIES	MHK	1.8x	2.1x	-0.3x
ARMSTRONG FLOORING	AFI	3.4x	3.6x	-0.2x
MASCO	MAS	3.0x	3.2x	-0.2x
AMERICAN WOODMARK	AMWD	2.6x	2.5x	0.1x
TOPBUILD	BLD	2.2x	1.9x	0.3x
SHERWIN-WILLIAMS	SHW	3.6x	2.7x	0.9x
ARMSTRONG WORLD INDUSTRIES	AWI	4.3x	3.1x	1.2x
Group Median		2.6x	3.2x	-0.3x
Group Mean		2.8x	3.9x	-1.1x

Mortgage Insurers				
Company	Ticker	Current Days to Cover	Days to Cover-Jan 1	Delta
NMI HOLDINGS	NMIH	1.5x	3.3x	-1.7x
MGIC INVESTMENT	MTG	0.8x	1.5x	-0.7x
RADIAN GROUP	RDN	1.0x	1.7x	-0.7x
ESSENT GROUP	ESNT	1.0x	1.3x	-0.3x
Group Median		1.0x	1.6x	-0.7x
Group Mean		1.1x	1.9x	-0.9x

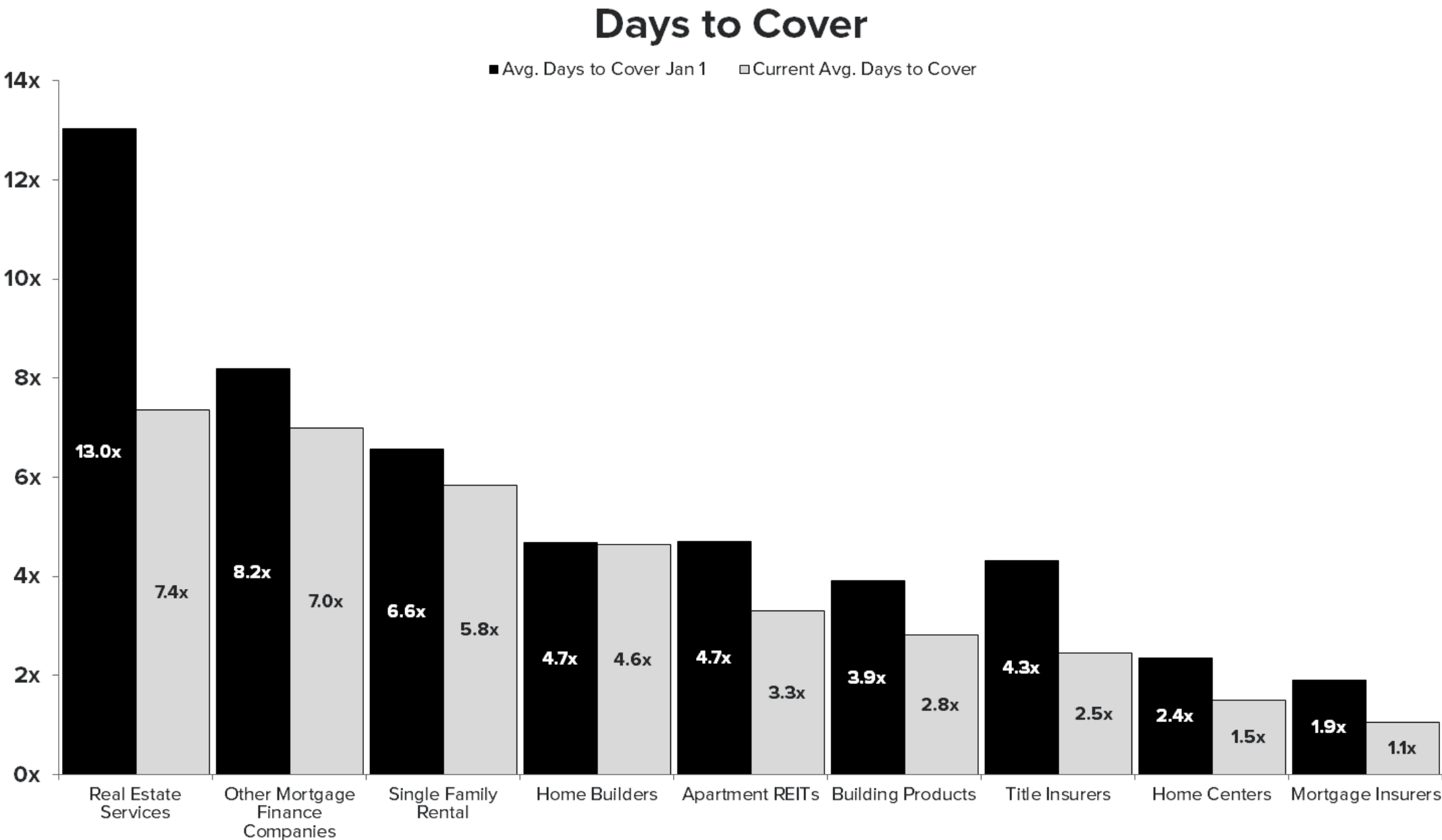
Real Estate Services				
Company	Ticker	Current Days to Cover	Days to Cover-Jan 1	Delta
ZILLOW GROUP INC - C	Z	11.4x	30.1x	-18.7x
ZILLOW GROUP INC - A	ZG	5.2x	12.3x	-7.0x
REDFIN	RDFN	5.6x	10.9x	-5.3x
RE/MAX HOLDINGS	RMAX	4.6x	3.9x	0.7x
REALOGY HOLDINGS	RLGY	9.9x	8.0x	1.9x
Group Median		5.6x	10.9x	-5.3x
Group Mean		7.4x	13.0x	-5.7x

Single Family Rental				
Company	Ticker	Current Days to Cover	Days to Cover-Jan 1	Delta
INVITATION HOMES	INVH	7.8x	9.0x	-1.2x
AMERICAN HOMES 4 RENT	AMH	3.8x	4.1x	-0.3x
Group Median		5.8x	6.6x	-0.7x
Group Mean		5.8x	6.6x	-0.7x

Title Insurers				
Company	Ticker	Current Days to Cover	Days to Cover-Jan 1	Delta
STEWART INFORMATION SERVICES	STC	0.3x	3.1x	-2.7x
FIRST AMERICAN FINANCIAL	FAF	4.0x	6.4x	-2.4x
FIDELITY NATIONAL FINANCIAL	FNF	3.1x	3.6x	-0.5x
Group Median		3.1x	3.6x	-0.5x
Group Mean		2.5x	4.3x	-1.9x

Apartment REITs				
Company	Ticker	Current Days to Cover	Days to Cover-Jan 1	Delta
CAMDEN PROPERTY TRUST	CPT	3.7x	6.6x	-2.9x
AVALONBAY COMMUNITIES	AVB	3.6x	6.1x	-2.5x
MID-AMERICA APARTMENT	MAA	1.9x	4.0x	-2.1x
EQUITY RESIDENTIAL	EQR	2.4x	4.1x	-1.8x
APARTMENT INVT & MGMT	AIV	3.1x	3.8x	-0.7x
UDR	UDR	3.4x	3.5x	-0.1x
ESSEX PROPERTY TRUST	ESS	5.0x	4.8x	0.2x
Group Median		3.4x	4.1x	-1.8x
Group Mean		3.3x	4.7x	-1.4x

DAYS TO COVER BY SUBSECTOR



CHANGE IN REVENUE EXPECTATIONS

Home Builders				
Company	Ticker	CY18 Street Rev- Current	CY18 Street Rev- Jan 1	Delta
LENNAR	LEN	\$20,521	\$15,503	32.4%
WILLIAM LYON HOMES	WLH	\$2,240	\$1,988	12.7%
M/I HOMES	MHO	\$2,224	\$2,089	6.5%
MERITAGE HOMES	MTH	\$3,549	\$3,414	4.0%
MDC HOLDINGS	MDC	\$2,944	\$2,877	2.3%
BEAZER HOMES	BZH	\$2,013	\$1,972	2.1%
NEW HOME CO	NWHM	\$758	\$744	1.9%
KB HOME	KBH	\$4,721	\$4,657	1.4%
NVR	NVR	\$7,317	\$7,240	1.1%
TOLL BROTHERS	TOL	\$7,104	\$7,046	0.8%
DR HORTON	DHI	\$16,568	\$16,481	0.5%
TRI POINTE GROUP	TPH	\$3,255	\$3,248	0.2%
TAYLOR MORRISON HOME	TMHC	\$4,225	\$4,327	-2.4%
FIVE POINT HOLDINGS	FPH	\$52	\$55	-4.5%
PULTEGROUP	PHM	\$9,614	\$10,155	-5.3%
HOVNANIAN ENTERPRISES	HOV	\$2,069	\$2,215	-6.6%
Group Median		\$3,402	\$3,331	1.2%
Group Mean		\$5,573	\$5,251	2.9%

Home Centers				
Company	Ticker	CY18 Street Rev- Current	CY18 Street Rev- Jan 1	Delta
HOME DEPOT	HD	\$106,855	\$106,143	0.7%
LOWE'S COS	LOW	\$71,086	\$70,998	0.1%
Group Median		\$88,971	\$88,571	0.4%
Group Mean		\$88,971	\$88,571	0.4%

Other Mortgage Finance Companies				
Company	Ticker	CY18 Street Rev- Current	CY18 Street Rev- Jan 1	Delta
ELLIE MAE	ELLI	\$498	\$493	1.0%
CORELOGIC	CLGX	\$1,848	\$1,858	-0.5%
Group Median		\$1,173	\$1,176	0.2%
Group Mean		\$1,173	\$1,176	0.2%

Building Products				
Company	Ticker	CY18 Street Rev- Current	CY18 Street Rev- Jan 1	Delta
AMERICAN WOODMARK	AMWD	\$1,636	\$1,402	16.7%
TOPBUILD	BLD	\$2,178	\$2,069	5.3%
MASCO	MAS	\$8,416	\$8,004	5.1%
OWENS CORNING	OC	\$7,186	\$6,908	4.0%
STANLEY BLACK & DECKER	SWK	\$13,797	\$13,441	2.6%
INSTALLED BUILDING PRODUCTS	IBP	\$1,312	\$1,283	2.2%
USG	USG	\$3,379	\$3,316	1.9%
PLY GEM HOLDINGS	PGEM	\$2,225	\$2,196	1.3%
SHERWIN-WILLIAMS	SHW	\$17,785	\$17,685	0.6%
MOHAWK INDUSTRIES	MHK	\$10,228	\$10,188	0.4%
ARMSTRONG FLOORING	AFI	\$1,142	\$1,145	-0.2%
FORTUNE BRANDS HOME & SECURITY	FBHS	\$5,626	\$5,645	-0.3%
ARMSTRONG WORLD INDUSTRIES	AWI	\$945	\$1,057	-10.6%
Group Median		\$3,379	\$3,316	1.9%
Group Mean		\$5,835	\$5,718	2.2%

Mortgage Insurers				
Company	Ticker	CY18 Street Rev- Current	CY18 Street Rev- Jan 1	Delta
NMI HOLDINGS	NMIH	\$258	\$245	5.3%
ESSENT GROUP	ESNT	\$715	\$707	1.1%
RADIAN GROUP	RDN	\$1,297	\$1,301	-0.3%
MGIC INVESTMENT	MTG	\$1,126	\$1,134	-0.7%
Group Median		\$920	\$920	0.4%
Group Mean		\$849	\$847	1.3%

Real Estate Services				
Company	Ticker	CY18 Street Rev- Current	CY18 Street Rev- Jan 1	Delta
ZILLOW GROUP INC - A	ZG	\$1,313	\$1,299	1.0%
ZILLOW GROUP INC - C	Z	\$1,313	\$1,299	1.0%
REDFIN	RDFN	\$471	\$476	-1.2%
REALOGY HOLDINGS	RLGY	\$6,263	\$6,391	-2.0%
RE/MAX HOLDINGS	RMAX	\$208	\$212	-2.1%
Group Median		\$1,313	\$1,299	-1.2%
Group Mean		\$1,913	\$1,936	-0.6%

Single Family Rental				
Company	Ticker	CY18 Street Rev- Current	CY18 Street Rev- Jan 1	Delta
INVITATION HOMES	INVH	\$1,697	\$1,402	21.0%
AMERICAN HOMES 4 RENT	AMH	\$1,039	\$1,053	-1.3%
Group Median		\$1,368	\$1,227	9.9%
Group Mean		\$1,368	\$1,227	9.9%

Title Insurers				
Company	Ticker	CY18 Street Rev- Current	CY18 Street Rev- Jan 1	Delta
STEWART INFORMATION SERVICES	STC	\$2,019	\$1,989	1.5%
FIRST AMERICAN FINANCIAL	FAF	\$5,918	\$5,840	1.3%
FIDELITY NATIONAL FINANCIAL	FNF	\$7,843	\$7,763	1.0%
Group Median		\$5,918	\$5,840	1.3%
Group Mean		\$5,260	\$5,197	1.3%

Apartment REITs				
Company	Ticker	CY18 Street Rev- Current	CY18 Street Rev- Jan 1	Delta
APARTMENT INVT & MGMT	AIV	\$981	\$970	1.2%
AVALONBAY COMMUNITIES	AVB	\$2,269	\$2,274	-0.2%
EQUITY RESIDENTIAL	EQR	\$2,547	\$2,555	-0.3%
CAMDEN PROPERTY TRUST	CPT	\$953	\$957	-0.4%
UDR	UDR	\$1,027	\$1,033	-0.6%
MID-AMERICA APARTMENT COMMUNITIES	MAA	\$1,567	\$1,590	-1.5%
ESSEX PROPERTY TRUST	ESS	\$1,393	\$1,420	-1.9%
Group Median		\$1,393	\$1,420	-0.4%
Group Mean		\$1,534	\$1,543	-0.5%

Y/Y REVENUE GROWTH EXPECTATIONS

Home Builders				
Company	Ticker	Consensus CY17 Revenue	Consensus CY18 Revenue	Delta
LENNAR	LEN	\$12,861	\$20,521	59.6%
WILLIAM LYON HOMES	WLH	\$1,797	\$2,240	24.7%
TOLL BROTHERS	TOL	\$5,985	\$7,104	18.7%
NVR	NVR	\$6,176	\$7,317	18.5%
MDC HOLDINGS	MDC	\$2,503	\$2,944	17.6%
TRI POINTE GROUP	TPH	\$2,809	\$3,255	15.9%
DR HORTON	DHI	\$14,520	\$16,568	14.1%
M/I HOMES	MHO	\$1,962	\$2,224	13.3%
PULTEGROUP	PHM	\$8,573	\$9,614	12.1%
TAYLOR MORRISON HOME	TMHC	\$3,799	\$4,225	11.2%
MERITAGE HOMES	MTH	\$3,227	\$3,549	10.0%
KB HOME	KBH	\$4,386	\$4,721	7.6%
BEAZER HOMES	BZH	\$1,950	\$2,013	3.2%
NEW HOME CO	NWHM	\$751	\$758	0.9%
HOVNANIAN ENTERPRISES	HOV	\$2,362	\$2,069	-12.4%
FIVE POINT HOLDINGS	FPH	\$130	\$52	-59.3%
Group Median		\$3,018	\$3,402	12.7%
Group Mean		\$4,612	\$5,573	9.7%

Home Centers				
Company	Ticker	Consensus CY17 Revenue	Consensus CY18 Revenue	Delta
HOME DEPOT	HD	\$100,345	\$106,855	6.5%
LOWE'S COS	LOW	\$68,716	\$71,086	3.4%
Group Median		\$84,531	\$88,971	5.0%
Group Mean		\$84,531	\$88,971	5.0%

Other Mortgage Finance Companies				
Company	Ticker	Consensus CY17 Revenue	Consensus CY18 Revenue	Delta
ELLIE MAE	ELLI	\$417	\$498	19.5%
CORELOGIC	CLGX	\$1,851	\$1,848	-0.2%
Group Median		\$1,134	\$1,173	9.7%
Group Mean		\$1,134	\$1,173	9.7%

Building Products				
Company	Ticker	Consensus CY17 Revenue	Consensus CY18 Revenue	Delta
AMERICAN WOODMARK	AMWD	\$1,089	\$1,636	50.3%
SHERWIN-WILLIAMS	SHW	\$14,984	\$17,785	18.7%
INSTALLED BUILDING PRODUCTS	IBP	\$1,133	\$1,312	15.8%
TOPBUILD	BLD	\$1,906	\$2,178	14.3%
OWENS CORNING	OC	\$6,384	\$7,186	12.6%
MASCO	MAS	\$7,644	\$8,416	10.1%
STANLEY BLACK & DECKER	SWK	\$12,747	\$13,797	8.2%
PLY GEM HOLDINGS	PGEM	\$2,056	\$2,225	8.2%
MOHAWK INDUSTRIES	MHK	\$9,491	\$10,228	7.8%
FORTUNE BRANDS HOME & SECURITY	FBHS	\$5,283	\$5,626	6.5%
ARMSTRONG WORLD INDUSTRIES	AWI	\$894	\$945	5.8%
USG	USG	\$3,204	\$3,379	5.4%
ARMSTRONG FLOORING	AFI	\$1,134	\$1,142	0.7%
Group Median		\$3,204	\$3,379	8.2%
Group Mean		\$5,227	\$5,835	12.6%

Mortgage Insurers				
Company	Ticker	Consensus CY17 Revenue	Consensus CY18 Revenue	Delta
NMI HOLDINGS	NMIH	\$183	\$258	41.2%
ESSENT GROUP	ESNT	\$577	\$715	24.0%
RADIAN GROUP	RDN	\$1,222	\$1,297	6.2%
MGIC INVESTMENT	MTG	\$1,066	\$1,126	5.6%
Group Median		\$821	\$920	15.1%
Group Mean		\$762	\$849	19.2%

Real Estate Services				
Company	Ticker	Consensus CY17 Revenue	Consensus CY18 Revenue	Delta
REDFIN	RDFN	\$370	\$471	27.2%
ZILLOW GROUP INC - A	ZG	\$1,077	\$1,313	21.9%
ZILLOW GROUP INC - C	Z	\$1,077	\$1,313	21.9%
RE/MAX HOLDINGS	RMAX	\$196	\$208	6.1%
REALOGY HOLDINGS	RLGY	\$6,114	\$6,263	2.4%
Group Median		\$1,077	\$1,313	21.9%
Group Mean		\$1,767	\$1,913	15.9%

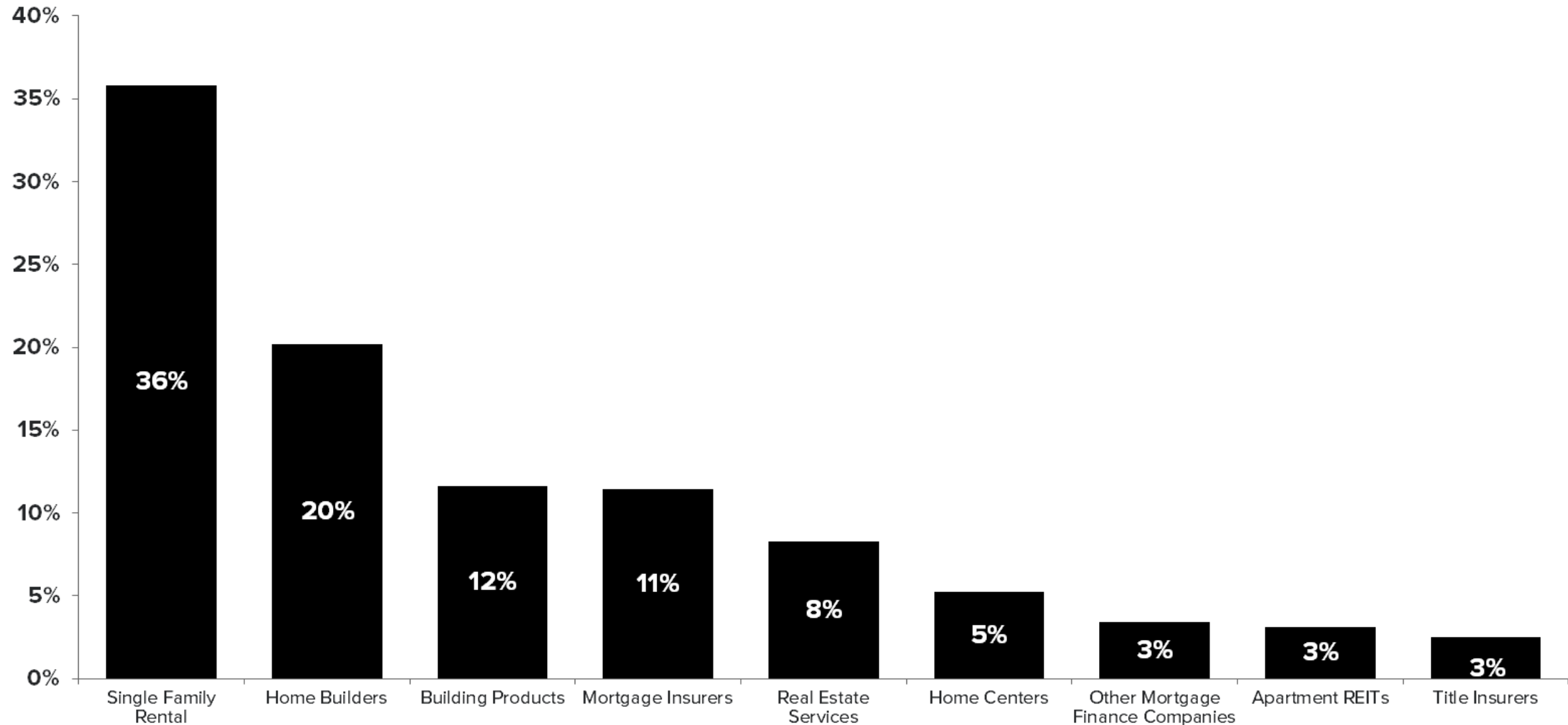
Single Family Rental				
Company	Ticker	Consensus CY17 Revenue	Consensus CY18 Revenue	Delta
INVITATION HOMES	INVH	\$1,054	\$1,697	60.9%
AMERICAN HOMES 4 RENT	AMH	\$960	\$1,039	8.2%
Group Median		\$1,007	\$1,368	34.6%
Group Mean		\$1,007	\$1,368	34.6%

Title Insurers				
Company	Ticker	Consensus CY17 Revenue	Consensus CY18 Revenue	Delta
STEWART INFORMATION SERVICES	STC	\$1,956	\$2,019	3.2%
FIRST AMERICAN FINANCIAL	FAF	\$5,772	\$5,918	2.5%
FIDELITY NATIONAL FINANCIAL	FNF	\$7,663	\$7,843	2.3%
Group Median		\$5,772	\$5,918	2.5%
Group Mean		\$5,130	\$5,260	2.7%

Apartment REITs				
Company	Ticker	Consensus CY17 Revenue	Consensus CY18 Revenue	Delta
CAMDEN PROPERTY TRUST	CPT	\$901	\$953	5.8%
AVALONBAY COMMUNITIES	AVB	\$2,159	\$2,269	5.1%
UDR	UDR	\$996	\$1,027	3.1%
EQUITY RESIDENTIAL	EQR	\$2,471	\$2,547	3.1%
ESSEX PROPERTY TRUST	ESS	\$1,354	\$1,393	2.8%
MID-AMERICA APARTMENT COMMUNITIES	MAA	\$1,529	\$1,567	2.5%
APARTMENT INVT & MGMT	AIV	\$1,005	\$981	-2.4%
Group Median		\$1,354	\$1,393	3.1%
Group Mean		\$1,488	\$1,534	2.9%

Y/Y REVENUE GROWTH EXPECTATIONS BY SUBSECTOR

Consensus 2018 Revenue Growth Rate, YoY



CHANGE IN EPS EXPECTATIONS

Home Builders				
Company	Ticker	Current Street CY18	Street CY18 on Jan 1	Delta
KB HOME	KBH	\$2.76	\$2.20	25.0%
BEAZER HOMES	BZH	\$1.48	\$1.23	19.6%
WILLIAM LYON HOMES	WLH	\$3.12	\$2.63	18.6%
TAYLOR MORRISON HOME	TMHC	\$2.60	\$2.22	17.2%
DR HORTON	DHI	\$3.88	\$3.31	17.2%
TOLL BROTHERS	TOL	\$4.33	\$3.71	16.6%
MDC HOLDINGS	MDC	\$2.96	\$2.56	15.7%
MERITAGE HOMES	MTH	\$5.03	\$4.43	13.7%
TRI POINTE GROUP	TPH	\$1.81	\$1.59	13.6%
NVR	NVR	\$189.08	\$167.12	13.1%
M/I HOMES	MHO	\$4.05	\$3.77	7.4%
PULTEGROUP	PHM	\$3.10	\$2.91	6.8%
LENNAR	LEN	\$5.09	\$4.88	4.3%
FIVE POINT HOLDINGS	FPH	(\$0.20)	(\$0.19)	-8.6%
NEW HOME CO	NWHM	\$1.07	\$1.18	-9.3%
HOVNANIAN ENTERPRISES	HOV	(\$0.13)	(\$0.02)	-589.7%
Group Median		\$3.03	\$2.60	13.6%
Group Mean		\$14.38	\$12.72	-26.1%

Home Centers				
Company	Ticker	Current Street CY18	Street CY18 on Jan 1	Delta
HOME DEPOT	HD	\$9.26	\$8.34	11.0%
LOWE'S COS	LOW	\$5.37	\$5.13	4.7%
Group Median		\$7.31	\$6.73	7.9%
Group Mean		\$7.31	\$6.73	7.9%

Other Mortgage Finance Companies				
Company	Ticker	Current Street CY18	Street CY18 on Jan 1	Delta
ELIE MAE	ELI	\$1.72	\$1.58	8.9%
CORELOGIC	CLGX	\$2.61	\$2.46	6.2%
Group Median		\$2.17	\$2.02	7.6%
Group Mean		\$2.17	\$2.02	7.6%

Apartment REITs				
Company	Ticker	Current Street CY18	Street CY18 on Jan 1	Delta
ESSEX PROPERTY TRUST	ESS	\$4.57	\$4.49	1.7%
CAMDEN PROPERTY TRUST	CPT	\$1.92	\$1.97	-2.5%
MID-AMERICA APARTMENT	MAA	\$2.09	\$2.22	-6.1%
AVALONBAY COMMUNITIES	AVB	\$4.36	\$4.65	-6.3%
EQUITY RESIDENTIAL	EQR	\$1.19	\$1.40	-14.9%
APARTMENT INVT & MGMT	AIV	\$0.26	\$0.36	-26.9%
UDR	UDR	\$0.21	\$0.29	-29.6%
Group Median		\$1.92	\$1.97	-6.3%
Group Mean		\$2.09	\$2.20	-12.1%

Building Products				
Company	Ticker	Current Street CY18	Street CY18 on Jan 1	Delta
AMERICAN WOODMARK	AMWD	\$7.03	\$5.32	32.1%
MASCO	MAS	\$2.57	\$2.26	13.5%
ARMSTRONG WORLD INDUSTRIES	AWI	\$3.62	\$3.25	11.4%
TOPBUILD	BLD	\$4.07	\$3.65	11.3%
OWENS CORNING	OC	\$5.76	\$5.25	9.8%
INSTALLED BUILDING PRODUCTS	IBP	\$2.89	\$2.68	7.6%
MOHAWK INDUSTRIES	MHK	\$15.73	\$14.84	6.0%
SHERWIN WILLIAMS	SHW	\$19.15	\$18.34	4.4%
USG	USG	\$2.20	\$2.11	4.3%
FORTUNE BRANDS	FBHS	\$3.63	\$3.50	3.8%
ARMSTRONG FLOORING	AFI	\$0.40	\$0.39	3.1%
STANLEY BLACK & DECKER	SWK	\$8.44	\$8.34	1.2%
PLY GEM HOLDINGS	PGEM	\$1.40	\$1.44	-2.8%
Group Median		\$3.63	\$3.50	6.0%
Group Mean		\$5.91	\$5.49	8.1%

Mortgage Insurers				
Company	Ticker	Current Street CY18	Street CY18 on Jan 1	Delta
RADIAN GROUP	RDN	\$2.39	\$1.96	22.2%
NMI HOLDINGS	NMIH	\$1.43	\$1.22	17.2%
ESSENT GROUP	ESNT	\$4.36	\$3.77	15.7%
MGIC INVESTMENT	MTG	\$1.46	\$1.27	14.7%
Group Median		\$1.93	\$1.61	16.5%
Group Mean		\$2.41	\$2.05	17.5%

Real Estate Services				
Company	Ticker	Current Street CY18	Street CY18 on Jan 1	Delta
REALOGY HOLDINGS	RLGY	\$1.91	\$1.80	6.1%
ZILLOW GROUP INC - A	ZG	\$0.84	\$0.86	-2.7%
ZILLOW GROUP INC - C	Z	\$0.84	\$0.86	-2.7%
RE/MAX HOLDINGS	RMAX	\$2.17	\$2.36	-7.9%
REDFIN	RDFN	(\$0.19)	(\$0.08)	-140%
Group Median		\$0.84	\$0.86	-2.7%
Group Mean		\$1.11	\$1.16	-29.4%

Single Family Rental				
Company	Ticker	Current Street CY18	Street CY18 on Jan 1	Delta
INVITATION HOMES	INVH	\$0.54	\$0.36	52.4%
AMERICAN HOMES 4 RENT	AMH	\$0.17	\$0.24	-30.0%
Group Median		\$0.36	\$0.30	11.2%
Group Mean		\$0.36	\$0.30	11.2%

Title Insurers				
Company	Ticker	Current Street CY18	Street CY18 on Jan 1	Delta
FIRST AMERICAN FINANCIAL	FAF	\$4.44	\$3.93	13.1%
FIDELITY NATIONAL FINANCIAL	FNF	\$2.79	\$2.56	9.0%
STEWART INFORMATION SERVICES	STC	\$3.20	\$3.10	3.2%
Group Median		\$3.20	\$3.10	9.0%
Group Mean		\$3.48	\$3.20	8.4%

Y/Y EPS GROWTH EXPECTATIONS

Home Builders				
Company	Ticker	Consensus CY17	Consensus CY18	Delta
MERITAGE HOMES	MTH	\$3.39	\$5.03	48%
NVR	NVR	\$127.72	\$189.08	48%
KB HOME	KBH	\$1.91	\$2.76	44%
PULTEGROUP	PHM	\$2.19	\$3.10	42%
WILLIAM LYON HOMES	WLH	\$2.21	\$3.12	41%
M/I HOMES	MHO	\$2.88	\$4.05	40%
TAYLOR MORRISON HOME	TMHC	\$1.98	\$2.60	32%
DR HORTON	DHI	\$2.98	\$3.88	30%
TOLL BROTHERS	TOL	\$3.38	\$4.33	28%
LENNAR	LEN	\$3.99	\$5.09	28%
TRI POINTE GROUP	TPH	\$1.42	\$1.81	27%
HOVNANIAN ENTERPRISES	HOV	(\$0.17)	(\$0.13)	22%
MDC HOLDINGS	MDC	\$2.48	\$2.96	19%
BEAZER HOMES	BZH	\$1.27	\$1.48	17%
NEW HOME CO	NWHM	\$0.97	\$1.07	10%
FIVE POINT HOLDINGS	FPH	(\$0.07)	(\$0.20)	-178%
Group Median		\$2.20	\$3.03	\$0.29
Group Mean		\$9.91	\$14.38	\$0.19

Home Centers				
Company	Ticker	Consensus CY17	Consensus CY18	Delta
HOME DEPOT	HD	\$7.37	\$9.26	26%
LOWE'S COS	LOW	\$4.43	\$5.37	21%
Group Median		\$5.90	\$7.31	\$0.23
Group Mean		\$5.90	\$7.31	\$0.23

Other Mortgage Finance Companies				
Company	Ticker	Consensus CY17	Consensus CY18	Delta
CORELOGIC	CLGX	\$2.37	\$2.61	10%
ELLIE MAE	ELU	\$1.64	\$1.72	5%
Group Median		\$2.01	\$2.17	\$0.07
Group Mean		\$2.01	\$2.17	\$0.07

Building Products				
Company	Ticker	Consensus CY17	Consensus CY18	Delta
ARMSTRONG FLOORING	AFI	\$0.21	\$0.40	90%
AMERICAN WOODMARK	AMWD	\$4.56	\$7.03	54%
TOPBUILD	BLD	\$2.78	\$4.07	46%
PLY GEM HOLDINGS	PGEM	\$0.98	\$1.40	42%
INSTALLED BUILDING PRODUCTS	IBP	\$2.05	\$2.89	41%
MASCO	MAS	\$1.94	\$2.57	32%
OWENS CORNING	OC	\$4.40	\$5.76	31%
SHERWIN-WILLIAMS	SHW	\$15.07	\$19.15	27%
ARMSTRONG WORLD INDUSTRIES	AWI	\$2.86	\$3.62	27%
USG	USG	\$1.80	\$2.20	22%
FORTUNE BRANDS	FBHS	\$3.08	\$3.63	18%
MOHAWK INDUSTRIES	MHK	\$13.61	\$15.73	16%
STANLEY BLACK & DECKER	SWK	\$7.45	\$8.44	13%
Group Median		\$2.86	\$3.63	\$0.31
Group Mean		\$4.68	\$5.91	\$0.35

Mortgage Insurers				
Company	Ticker	Consensus CY17	Consensus CY18	Delta
NMI HOLDINGS	NMIH	\$0.61	\$1.43	133%
RADIAN GROUP	RDN	\$1.82	\$2.39	31%
ESSENT GROUP	ESNT	\$3.99	\$4.36	9%
MGIC INVESTMENT	MTG	\$1.36	\$1.46	7%
Group Median		\$1.59	\$1.93	\$0.20
Group Mean		\$1.95	\$2.41	\$0.45

Real Estate Services				
Company	Ticker	Consensus CY17	Consensus CY18	Delta
ZILLOW GROUP INC - A	ZG	\$0.53	\$0.84	58%
ZILLOW GROUP INC - C	Z	\$0.53	\$0.84	57%
REALOGY HOLDINGS	RLGY	\$1.57	\$1.91	21%
RE/MAX HOLDINGS	RMAX	\$1.87	\$2.17	16%
REDFIN	RDFN	(\$0.20)	(\$0.19)	4%
Group Median		\$0.53	\$0.84	\$0.21
Group Mean		\$0.86	\$1.11	\$0.32

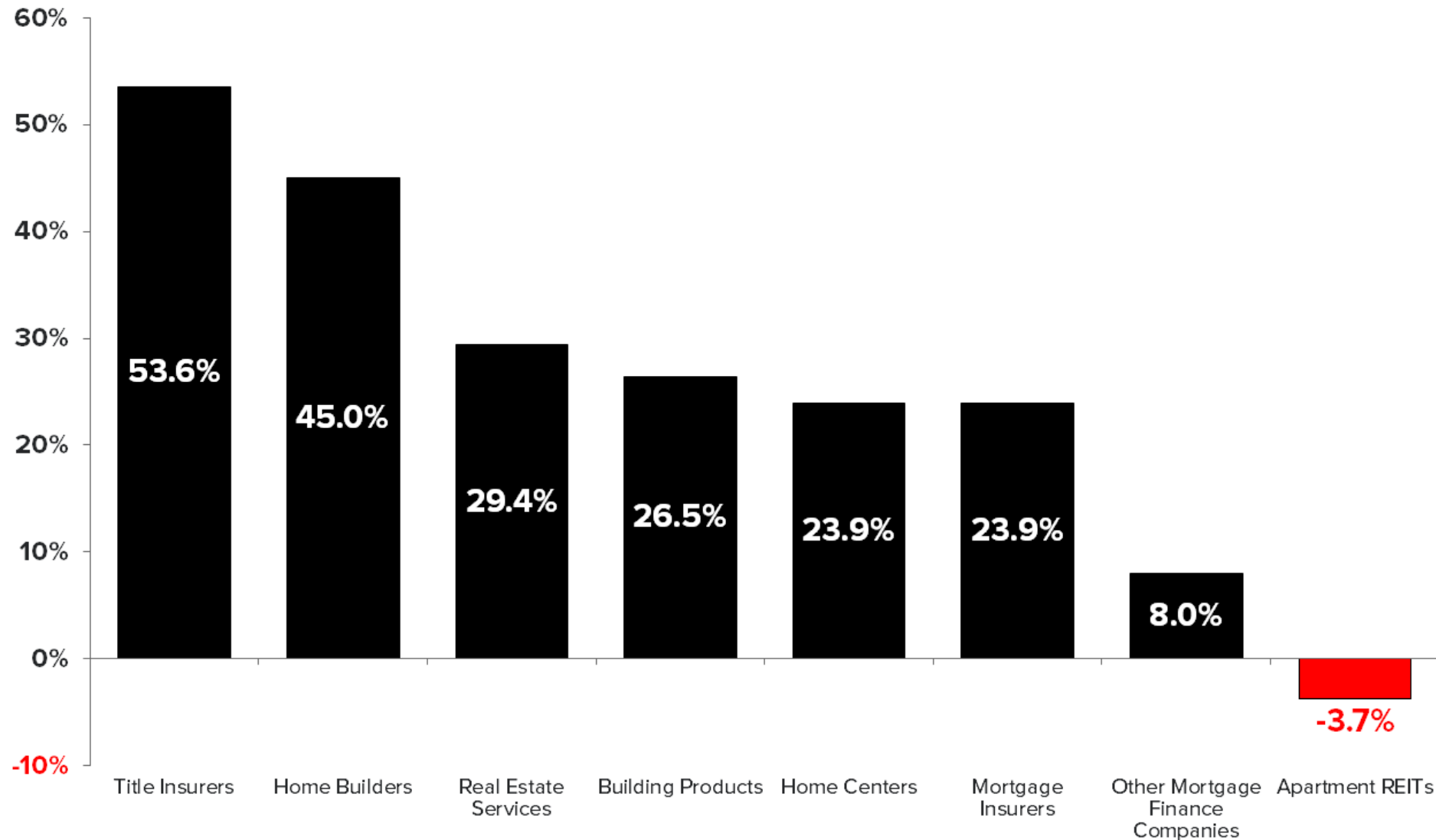
Single Family Rental				
Company	Ticker	Consensus CY17	Consensus CY18	Delta
INVITATION HOMES	INVH	(\$0.29)	\$0.54	N/A
AMERICAN HOMES 4 RENT	AMH	(\$0.05)	\$0.17	N/A
Group Median		(\$0.17)	\$0.36	N/A
Group Mean		(\$0.17)	\$0.36	N/A

Title Insurers				
Company	Ticker	Consensus CY17	Consensus CY18	Delta
FIRST AMERICAN FINANCIAL	FAF	\$2.68	\$4.44	65%
STEWART INFORMATION SERVICES	STC	\$2.29	\$3.20	40%
FIDELITY NATIONAL FINANCIAL	FNF	\$2.27	\$2.79	23%
Group Median		\$2.29	\$3.20	\$0.40
Group Mean		\$2.41	\$3.48	\$0.43

Apartment REITs				
Company	Ticker	Consensus CY17	Consensus CY18	Delta
CAMDEN PROPERTY TRUST	CPT	\$1.71	\$1.92	13%
MID-AMERICA APARTMENT	MAA	\$1.98	\$2.09	6%
EQUITY RESIDENTIAL	EQR	\$1.19	\$1.19	0%
ESSEX PROPERTY TRUST	ESS	\$4.85	\$4.57	-6%
AVALONBAY COMMUNITIES	AVB	\$4.83	\$4.36	-10%
UDR	UDR	\$0.33	\$0.21	-37%
APARTMENT INVT & MGMT	AIV	\$0.42	\$0.26	-38%
Group Median		\$1.71	\$1.92	(\$0.06)
Group Mean		\$2.19	\$2.09	(\$0.10)

Y/Y EPS GROWTH EXPECTATIONS BY SUBSECTOR

Consensus 2018 EPS Growth Rate, YoY



Home Builders			
Company	Ticker	P/E-Current	P/E- Jan 1
WILLIAM LYON HOMES	WLH	9.7x	9.8x
NEW HOME CO	NWHM	10.4x	11.9x
MERITAGE HOMES	MTH	11.4x	12.8x
TRI POINTE GROUP	TPH	11.8x	12.5x
BEAZER HOMES	BZH	11.8x	13.8x
TAYLOR MORRISON HOME	TMHC	12.0x	12.6x
KB HOME	KBH	12.5x	16.3x
TOLL BROTHERS	TOL	12.5x	14.8x
M/I HOMES	MHO	13.0x	13.0x
LENNAR	LEN	13.3x	16.2x
PULTEGROUP	PHM	13.4x	14.9x
MDC HOLDINGS	MDC	14.1x	15.5x
DR HORTON	DHI	14.9x	16.8x
NVR	NVR	22.4x	24.8x
FIVE POINT HOLDINGS	FPH	659.8x	648.7x
HOVNIANIAN ENTERPRISES	HOV	N/A	N/A
Group Median		12.5x	14.8x
Group Mean		56.2x	57.0x

Home Centers			
Company	Ticker	P/E-Current	P/E- Jan 1
LOWE'S COS	LOW	19.7x	20.4x
HOME DEPOT	HD	23.5x	26.3x
Group Median		21.6x	23.4x
Group Mean		21.6x	23.4x

Other Mortgage Finance Companies			
Company	Ticker	P/E-Current	P/E- Jan 1
CORELOGIC	CLGX	31.4x	32.1x
ELLIE MAE	ELLI	116.2x	109.5x
Group Median		73.8x	70.8x
Group Mean		73.8x	70.8x

Building Products			
Company	Ticker	P/E-Current	P/E- Jan 1
MOHAWK INDUSTRIES	MHK	17.6x	20.3x
OWENS CORNING	OC	18.6x	21.1x
FORTUNE BRANDS	FBHS	19.1x	22.2x
PLY GEM HOLDINGS	PGEM	19.2x	16.4x
STANLEY BLACK & DECKER	SWK	19.2x	21.5x
MASCO	MAS	21.4x	23.1x
ARMSTRONG WORLD INDUSTRIES	AWI	21.6x	23.3x
USG	USG	22.1x	21.5x
AMERICAN WOODMARK	AMWD	24.1x	28.3x
TOPBUILD	BLD	26.1x	25.6x
SHERWIN-WILLIAMS	SHW	28.6x	30.2x
INSTALLED BUILDING PRODUCTS	IBP	42.9x	58.1x
ARMSTRONG FLOORING	AFI	N/A	N/A
Group Median		21.5x	22.7x
Group Mean		23.4x	26.0x

Mortgage Insurers			
Company	Ticker	P/E-Current	P/E- Jan 1
RADIAN GROUP	RDN	7.9x	10.1x
MGIC INVESTMENT	MTG	7.9x	10.3x
ESSENT GROUP	ESNT	11.7x	14.1x
NMI HOLDINGS	NMIH	22.0x	27.1x
Group Median		9.8x	12.2x
Group Mean		12.4x	15.4x

Real Estate Services			
Company	Ticker	P/E-Current	P/E- Jan 1
REALOGY HOLDINGS	RLGY	17.6x	16.9x
RE/MAX HOLDINGS	RMAX	N/A	21.0x
ZILLOW GROUP INC - A	ZG	N/A	N/A
REDFIN	RDFN	N/A	N/A
ZILLOW GROUP INC - C	Z	N/A	N/A
Group Median		17.6x	19.0x
Group Mean		17.6x	19.0x

Single Family Rental			
Company	Ticker	P/E-Current	P/E- Jan 1
AMERICAN HOMES 4 RENT	AMH	N/A	623.1x
INVITATION HOMES	INVH	N/A	N/A
Group Median		N/A	N/A
Group Mean		N/A	N/A

Title Insurers			
Company	Ticker	P/E-Current	P/E- Jan 1
FIDELITY NATIONAL FINANCIAL	FNF	19.2x	19.7x
FIRST AMERICAN FINANCIAL	FAF	20.9x	20.9x
STEWART INFORMATION SERVICES	STC	21.8x	21.1x
Group Median		20.9x	20.9x
Group Mean		20.6x	20.6x

Apartment REITs			
Company	Ticker	P/E-Current	P/E- Jan 1
MID-AMERICA APARTMENT	MAA	49.0x	53.5x
ESSEX PROPERTY TRUST	ESS	49.8x	49.7x
CAMDEN PROPERTY TRUST	CPT	51.1x	55.3x
AVALONBAY COMMUNITIES	AVB	53.5x	57.2x
EQUITY RESIDENTIAL	EQR	54.2x	55.1x
UDR	UDR	112.0x	120.6x
APARTMENT INVT & MGMT	AIV	154.9x	164.3x
Group Median		53.5x	55.3x
Group Mean		74.9x	79.4x

P/E DELTA

Home Builders

Company	Ticker	P/E-Current	P/E- Jan 1	Delta
KB HOME	KBH	12.5x	16.3x	-23.5%
LENNAR	LEN	13.3x	16.2x	-18.1%
TOLL BROTHERS	TOL	12.5x	14.8x	-15.4%
BEAZER HOMES	BZH	11.8x	13.8x	-14.3%
NEW HOME CO	NWHM	10.4x	11.9x	-13.2%
DR HORTON	DHI	14.9x	16.8x	-11.2%
MERITAGE HOMES	MTH	11.4x	12.8x	-10.4%
PULTEGROUP	PHM	13.4x	14.9x	-10.3%
NVR	NVR	22.4x	24.8x	-9.5%
MDC HOLDINGS	MDC	14.1x	15.5x	-8.8%
TRI POINTE GROUP	TPH	11.8x	12.5x	-5.6%
TAYLOR MORRISON HOME	TMHC	12.0x	12.6x	-4.5%
WILLIAM LYON HOMES	WLH	9.7x	9.8x	-1.0%
M/I HOMES	MHO	13.0x	13.0x	-0.5%
HOVNANIAN ENTERPRISES	HOV	N/A	N/A	N/A
FIVE POINT HOLDINGS	FPH	N/A	N/A	N/A
Group Median		12.5x	14.3x	-10.3%
Group Mean		13.1x	14.7x	-10.5%

Home Centers

Company	Ticker	P/E-Current	P/E- Jan 1	Delta
HOME DEPOT	HD	23.5x	26.3x	-10.8%
LOWE'S COS	LOW	19.7x	20.4x	-3.3%
Group Median		21.6x	23.4x	-7.1%
Group Mean		21.6x	23.4x	-7.1%

Other Mortgage Finance Companies

Company	Ticker	P/E-Current	P/E- Jan 1	Delta
CORELOGIC	CLGX	31.4x	32.1x	-2.3%
ELLIE MAE	ELLI	116.2x	109.5x	6.2%
Group Median		73.8x	70.8x	1.9%
Group Mean		73.8x	70.8x	1.9%

Building Products

Company	Ticker	P/E-Current	P/E- Jan 1	Delta
INSTALLED BUILDING PRODUCTS	IBP	42.9x	58.1x	-26.2%
AMERICAN WOODMARK	AMWD	24.1x	28.3x	-14.9%
FORTUNE BRANDS HOME & SECURITY	FBHS	19.1x	22.2x	-14.2%
MOHAWK INDUSTRIES	MHK	17.6x	20.3x	-13.4%
OWENS CORNING	OC	18.6x	21.1x	-11.7%
STANLEY BLACK & DECKER	SWK	19.2x	21.5x	-10.5%
ARMSTRONG WORLD INDUSTRIES	AWI	21.6x	23.3x	-7.4%
MASCO	MAS	21.4x	23.1x	-7.1%
SHERWIN-WILLIAMS	SHW	28.6x	30.2x	-5.3%
TOPBUILD	BLD	26.1x	25.6x	2.0%
USG	USG	22.1x	21.5x	2.9%
PLY GEM HOLDINGS	PGEM	19.2x	16.4x	17.0%
ARMSTRONG FLOORING	AFI	N/A	N/A	N/A
Group Median		21.5x	22.7x	-9.0%
Group Mean		23.4x	26.0x	-7.4%

Mortgage Insurers

Company	Ticker	P/E-Current	P/E- Jan 1	Delta
MGIC INVESTMENT	MTG	7.9x	10.3x	-23.0%
RADIAN GROUP	RDN	7.9x	10.1x	-21.3%
NMI HOLDINGS	NMIH	22.0x	27.1x	-18.8%
ESSENT GROUP	ESNT	11.7x	14.1x	-17.2%
Group Median		9.8x	12.2x	-20.1%
Group Mean		12.4x	15.4x	-20.1%

Real Estate Services

Company	Ticker	P/E-Current	P/E- Jan 1	Delta
REALOGY HOLDINGS	RLGY	17.6x	16.9x	4.2%
RE/MAX HOLDINGS	RMAX	N/A	21.0x	N/A
ZILLOW GROUP INC - A	ZG	N/A	N/A	N/A
REDFIN	RDFN	N/A	N/A	N/A
ZILLOW GROUP INC - C	Z	N/A	N/A	N/A
Group Median		17.6x	19.0x	4.2%
Group Mean		17.6x	19.0x	4.2%

Single Family Rental

Company	Ticker	P/E-Current	P/E- Jan 1	Delta
AMERICAN HOMES 4 RENT	AMH	N/A	N/A	N/A
INVITATION HOMES	INVH	N/A	N/A	N/A
Group Median		N/A	N/A	N/A
Group Mean		N/A	N/A	N/A

Title Insurers

Company	Ticker	P/E-Current	P/E- Jan 1	Delta
FIDELITY NATIONAL FINANCIAL	FNH	19.2x	19.7x	-2.6%
FIRST AMERICAN FINANCIAL	FAF	20.9x	20.9x	-0.2%
STEWART INFORMATION SERVICES	STC	21.8x	21.1x	3.5%
Group Median		20.9x	20.9x	-0.2%
Group Mean		20.6x	20.6x	0.2%

Apartment REITs

Company	Ticker	P/E-Current	P/E- Jan 1	Delta
MID-AMERICA APARTMENT COMMUNITIES	MAA	49.0x	53.5x	-8.3%
CAMDEN PROPERTY TRUST	CPT	51.1x	55.3x	-7.5%
UDR	UDR	112.0x	120.6x	-7.1%
AVALONBAY COMMUNITIES	AVB	53.5x	57.2x	-6.5%
APARTMENT INVT & MGMT	AIV	154.9x	164.3x	-5.7%
EQUITY RESIDENTIAL	EQR	54.2x	55.1x	-1.7%
ESSEX PROPERTY TRUST	ESS	49.8x	49.7x	0.2%
Group Median		53.5x	55.3x	-6.5%
Group Mean		74.9x	79.4x	-5.2%

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