

Observation

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HIGHLIGHTS

- In this report, we analyze longrun housing demand at a state level. Our findings suggest that two distinct phases of homebuilding will unfold on the East Coast in the coming decades.
- The first phase will take place over the next five to seven years, as a surge in home building will take hold in nearly every East Coast state. Florida and Georgia are in store for especially large cyclical rebounds in activity from their currently depressed levels.
- The second phase along the East Coast will be driven by demographic trends.
- In the Northeast, slowing population growth will result in a structural decline in homebuilding. In fact, by 2030, in a number of Northeast states CT, ME, RI, PA there will be little need for the housing stock to expand.
- In contrast, housing construction will remain stronger in the faster growing South Atlantic region.

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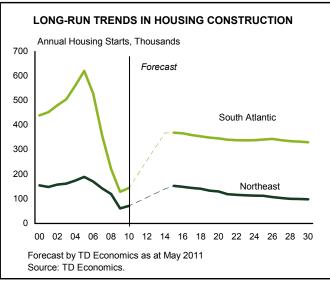
EAST COAST HOUSING – IF THEY BUILD IT, WILL THEY COME?

After years of a grueling decline, few people are holding their breath awaiting the triumphant return of America's housing market. Before the recession, the building and buying of new homes was a beacon of America's highflying economic potential. But now, nothing serves as a clearer reminder of the economy's vulnerability than the endless stream of foreclosure signs on lawns throughout the nation. There are no quick fixes for housing. As the nation grapples with record mortgage delinquencies, a sluggish employment recovery and an overwhelmed legal system, any near-term improvement in the sector will be tepid at best.

In this report, we step back from these challenges and look beyond the slump. There will eventually come a day when the housing market snaps out of its funk, as the existing stock of foreclosure inventory clears and home builders get back to breaking ground on new units. Previously, we've discussed this on a national level (see here). Now, we examine how this recovery will play out in the states along America's East Coast.

We anticipate two distinct phases of homebuilding to unfold along the East

Coast in the coming decades. The first phase will occur over the next five to seven years, as a broad cyclical rebound in homebuilding takes effect in almost every state. The second phase will be more lasting in nature, and lead to vastly different patterns of housing construction in the Northeast and the South Atlantic regions. Stronger population growth in the south will propel the construction of new



housing supply. Meanwhile, a gradual but persistent slowdown in the Northeast's population growth will limit the need for new development and shift the emphasis from new home construction to maintenance and improvement of the region's existing housing stock.

Sources of Housing Demand

The first step towards analyzing future regional housing trends is gauging future demand. We've done this by looking at three separate sources – demographics, replacement and vacant lots – and summing these components into an estimate of "fundamental demand" for each state. We don't intend these projections to be treated strictly as future estimates of housing construction, since housing is a cyclical in-

dustry that deviates from fundamentals for extended periods of time. However, fundamental demand does provide the anchor around which these cyclical fluctuations move, and serves as the basis for understanding future housing market trends and potential vulnerabilities.

Demographics are the most important component of housing demand. It is obvious that the size of the population matters, since a growing population increases the number of households in need of shelter. However, the characteristics of the population, like its age structure, are also important. An older population, for example, tends to have less people per household, creating more demand for housing than a younger population. Thus, to form realistic projections of future housing demand, we establish the future size and age structure of each state's population based on projections from the Census Bureau and various state agencies.

Next, we consider "replacement demand." Old houses are frequently torn down and newer homes are built in their place. Often this is done to improve the quality of an existing house. Other times, homes are simply too worn down and need to be rebuilt. Either way, these homes constitute an important element of total housing construction.

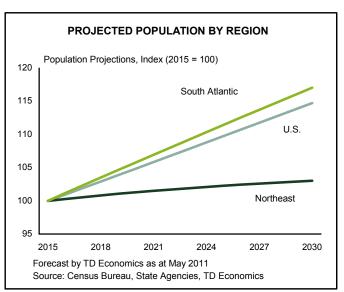
There is no simple way to project the rate at which existing stock is replaced, so we rely on history as a guide to the future. The Census Bureau releases estimates of the housing stock. By taking the difference between the growth in the housing stock and the number of new housing units built, we can estimate the number of homes demolished, and project future "replacement demand."

The final component of our housing forecasts comes from vacant housing units. It is important that a small share of the existing housing stock is empty to facilitate transactions for renters or movers. Also, many families own a second home for recreational or business purposes and these properties are recorded as vacant. Once again, we use history as a guide for assessing future demand from second homes and vacant properties.

After adding up the demand from demographics, replacement and vacant housing, we arrive at a "fundamental demand for housing starts" by state. These estimates are included in the table at the back of this report.

A Word of Caution

We have applied this straight forward method to produce realistic projections of future housing demand by state. Like any economic analysis, however, a number of factors pose risks to our analysis. First, the population projections are not certain to materialize. There has been a general



pattern of slowing population growth in the Northeast and faster population growth in the South over the last twenty years, and our projections assume a similar trend evolves in the future. Preferences and economic conditions could, however, change unexpectedly. Also, this analysis does not consider the qualitative features of housing units produced in each region. For example, an older population requires more housing units than a younger population. But, an older population may demand units of a different size or in a different location than a younger population. Also, a state's stock of housing says nothing about its regional distribution, which means demand could vary dramatically between one part of the state and another.

Future "State" Of Home Building

Now that we've pieced together fundamental demand for housing by state, what does it reveal about future housing trends across the east coast? The most glaring and intuitive observation is that current housing construction is well below its fundamentally supported level in nearly every state. This suggests that the entire region will enjoy a cyclical rebound in new construction, as pent up demand pushes building back towards its fundamentals over the next five to seven years.

A second observation relates to the long term, where changing demographics will lead to different trends in housing construction across the East Coast beyond 2020. In both the Northeast and the South, population growth is slated to slow between 2020 and 2030. This slowdown will, however, be more pronounced in the Northeast and limit the need to add more homes to the region's existing stock. In the South Atlantic, by contrast, the slowdown in population growth will be modest, and the region will continue to



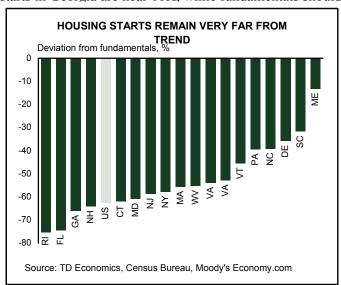
experience a rapid expansion in the existing housing stock between 2020 and 2030.

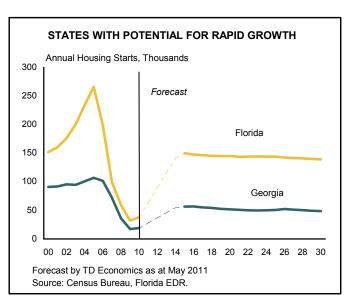
What Goes Down Must Come Up

First, we address the near-term, cyclical notion of pent-up demand. Across the East Coast, current housing construction is well below its trend pace. But, because the bulk of the East Coast is faring slightly better than the rest of the U.S., the inevitable rebound in construction will probably trail the national trend. There are two notable exceptions. Florida and Georgia (states with severe foreclosure challenges and healthy population growth projections) have enormous potential to mount explosive rebounds in home building over the next five to seven years.

To arrive at these conclusions, we use the national figure as a reference point. As of March 2011, the annual pace of new home building was about 550K. In 2016-17, our fundamental estimate suggests housing demand should be around 1.6 million units. This means that current construction is nearly 62% off its trend level.

There are only a handful of states along the East Coast that are performing this poorly. For two of these states – Rhode Island, and New Hampshire – the large percentage deviation can be misleading, because they are small markets and on a level basis they are only a couple thousand units from trend. More interesting are the large states that are performing worse than average – Florida and Georgia. Housing starts are currently lingering around 40K units a year in Florida (the region's worst, no surprise). Our fundamental measure suggests that over the medium term, construction should be closer to 150K units – more than a three fold increase over current levels. Currently housing starts in Georgia are near 16K, while fundamentals should





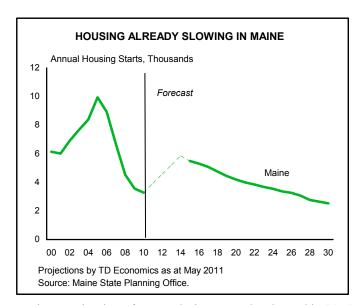
support nearly 57K units.

So what exactly has pushed construction so far from its fundamentals in these states? The first factor stems from the negative impact of foreclosures on home building. In both states, homebuilders are competing with an extensive supply of existing homes in foreclosure that are selling at remarkable discounts, and leading to large pullbacks in construction. The second reason is that both states generally have rapidly growing populations that require an expanding housing stock. While the population growth of these states has slumped during the recession, these slowdowns will reverse course as their job markets improves in the coming years. Combined, these factors create enormous potential for powerful cyclical rebounds once the job market recovers and the excess housing supply is widdled down. That said, the enormous structural challenges facing these states likely means the return to fundamentally supported levels will take longer than average.

More broadly, the majority of states on the East Coast are faring slightly better than the national average. Falling into this camp are the states not listed above, ranging from Connecticut (currently 62% off its long-term trend) to South Carolina (currently 32% off its long-term trend.) The relative "outperformance" of these states can be explained by a combination of less severe foreclosure challenges and less aggressive population growth projections. While the cyclical bounce back among these states may not be as robust as it will be on a national basis, it will still be significant – in many cases requiring housing starts to more than double.

The only state where current housing starts appear consistent with fundamentals is Maine. While housing construction in the Pine Tree state fell sharply during the re-





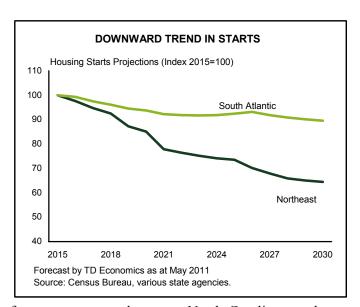
cession, projections for population growth released in 2010 by state demographers suggest that fundamental demand is quickly declining as a result of slowing population growth.

Long-Term Trends In Home Building

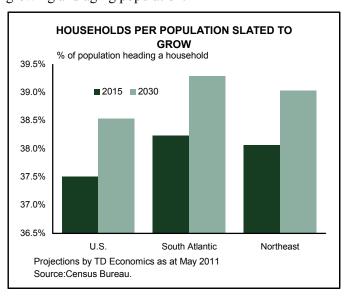
Almost every state in the Union will enjoy reinvigorated construction activity at some point over the next five to seven years, as homebuilding catches up with fundamentals. Over the long haul, however, demographics will drive housing demand. Population growth is slated to slow between 2020 and 2030 along the East Coast, but the extent of the slowdown will take on a distinct regional flavor. In the South Atlantic, while slowing slightly, population growth will continue to outpace the national average. As a result, fundamentally supported housing starts will only decline by a modest 4% from 346K units in 2020 to 331K units in 2030. In the Northeast, by contrast, population growth will slow to a crawl, severely limiting the demand for new housing. This will push demand 25% lower from 130K units in 2020 to just 98K units in 2030.

Throughout the South Atlantic long-run housing demand will ease slightly, but remain very robust over the next twenty years. Population growth will fuel most of this strength. In 2020, strong migration flows into the region will support population growth near 1.1%, a rate outpacing the national average of 0.95%. While growth in the South Atlantic will gradually taper down to 0.95% per year by 2030, it will still remain stronger than the national annual growth rate of 0.9%. Partially offsetting the impact of modestly slower population growth will be the aging of the region's population who will demand a greater number of housing units.

The South Atlantic trend will play out fairly consistently



from one state to the next. North Carolina stands out, because its population growth is projected to accelerate between 2020 and 2030, leading to a 4% increase in total annual housing demand. In Florida and Virginia, housing demand growth will ease ever so slightly from its 2020 pace, as a very modest deceleration in population growth is offset by an aging population. Demand will remain strong in Maryland, Georgia and South Carolina but will decline slightly faster than in Florida and Virginia because of a larger slowing in population growth. West Virginia is the only South Atlantic state that is slated for a sharp slowdown in population growth that will lead to a major slowdown in homebuilding. With the exception of West Virginia, there are some subtle differences: but, the South Atlantic trend is clear - considerable new housing construction will be necessary in the coming decades to keep pace with a fast growing and aging population.

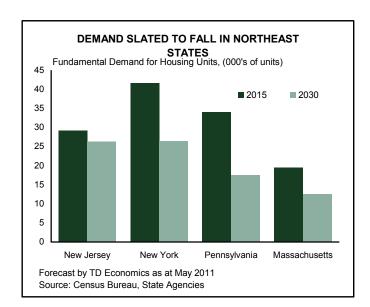


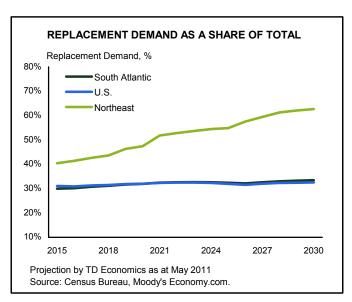
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In the Northeast, by contrast, long-run housing demand growth is poised to slow on a structural basis. Between 2020 and 2030, the region's annual population growth is projected to decline from 130K people to 76K per year, in large part because of weak migration trends. In percentage terms, this means annual population growth will slow from a tepid 0.2% to a measly 0.1%, well shy of the 0.9% slated for the nation in 2030. This slowing of population growth will more than offset the uplifting effects from an aging population, and is the most important factor contributing to the region's diminishing long-run demand.

No state in the region will avoid this trend, but some states will be harder hit than others. Pennsylvania, Maine, Rhode Island, and Connecticut are all slated for particularly sharp slowdowns: by 2030 there will be no need for a growing housing stock in these states. In other states, like Massachusetts, New Hampshire, and New Jersey, stronger population growth will support a less severe decline. New York provides a representative example of the region's fate, with fundamentally supported housing demand falling from 42K units in 2015 to just 26K units in 2030.

As these two different trends unfold across the East Coast, it will have important impacts on regional home-building industries. In the South, homebuilding will be geared towards expanding the existing stock of housing. Meanwhile, in the Northeast, replacement will become an increasing important source of demand for homebuilders. Furthermore, while both regions will experience a structural slowdown in demand, only in the Northeast will this slowdown be pronounced enough to cause a noticeable drag on the region's economic growth between 2015 and 2030.





Conclusions

In this report, we utilized existing population projections and realistic assumptions to estimate future housing market demand across the East Coast. While housing is cyclical in nature, we believe these long-run trends serve as useful guides for analyzing realistic future developments. After conducting our research, we expect two broad trends to play out across the East Coast housing market over the next two decades.

In the medium term, we are likely to see an impressive rebound in construction activity in nearly every state along the East Coast, as building activity rebounds towards the levels supported by fundamentals. For some states, like Florida and Georgia, this rebound could prove particularly explosive. For most other East Coast states, the rebound will be significant, but more muted than the national average.

In the long run, home construction in the Northeast will look much different from the south because Northeast population growth is slated to slow while it will hold steady in the South. This means that in the Northeast home building will become more centered on replacing and improving the existing stock of housing, while in the South housing starts will be driven by demand for new housing units.

Housing Summary Table																	
	ME	VT	NH	MA	RI	СТ	PA	NY	NJ	DE	MD	VA	wv	NC	sc	GA	FL
Fundamental Demand (000's of units annually)																	
2015	3.8	3.1	7.3	19.5	3.7	10.3	34.1	41.7	29.2	4.9	30.6	46.7	4.3	54.9	21.8	56.5	149.9
2020	2.9	2.5	6.4	15.8	2.6	7.8	26.3	39.6	26.1	4.8	27.3	43.5	3.0	52.6	18.4	51.7	145.1
2030	2.1	1.7	5.5	12.5	1.5	5.0	17.5	26.4	26.3	4.1	26.3	42.6	0.6	54.6	15.0	48.7	139.1
Replacement Rate (000's of units annually)																	
Average	2.0	1.0	1.8	7.7	1.4	4.5	17.5	14.5	11.3	1.6	11.6	16.6	2.8	13.0	5.4	17.5	43.8
Population (000's)																	
2015	1325	673	1457	6759	1140	3635	12711	19876	8883	940	6208	8467	1823	10011	4642	10231	19881
2020	1325	691	1525	6856	1154	3676	12787	20112	9066	982	6498	8917	1801	10709	4823	10844	21247
2030	1301	712	1646	7012	1153	3689	12768	20415	9466	1055	7022	9825	1720	12228	5149	12018	23821
				Н	eadshi	p Rate	(% of p	opulati	on hea	ding a	housel	nold)					
2015	0.42	0.40	0.38	0.38	0.37	0.38	0.40	0.37	0.37	0.38	0.36	0.38	0.42	0.40	0.40	0.37	0.38
2020	0.43	0.41	0.39	0.38	0.38	0.38	0.40	0.38	0.37	0.38	0.36	0.38	0.43	0.40	0.41	0.37	0.39
2030	0.44	0.41	0.39	0.39	0.38	0.39	0.41	0.38	0.38	0.39	0.37	0.38	0.44	0.40	0.41	0.37	0.40

Source: Census Bureau, various state agencies.

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