U.S. South Sawtimber Inventory Overhang Update

Timberland Investment Group

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Given what has been a muted housing recovery since the Great Recession, we decided to revisit our original analysis from 2017 concerning elevated sawtimber inventories in the U.S. South. While aggregate growth in housing starts over the last few years has resulted in an improved balance between sawtimber growth and harvest for lumber production in the U.S. South (please refer to the "Sawtimber Inventories Elevated, but Poised to Decline" section below), individual markets across the U.S. South appear to continue to build inventory given weaker sawtimber demand. Overall, our revised analysis extends the time it will take for sawtimber inventories to come into balance by three to four years, primarily due to existing housing conditions and a more conservative near-term housing starts forecast (our current near-term housing starts forecast is down ~5-10% versus our prior forecast). However, we should note that this reflects our analysis for the U.S. South broadly, and point out that there are several micro markets in this region that are already close to being in balance if not starting to show signs of constrained supply.

Since the 2009 trough, total housing starts have increased by ~713,000 units (~489,000 single-family units and ~224,000 multi-family units) equating to over 10 billion board feet or ~30% of current U.S. lumber production. Meanwhile, the composition of housing starts has changed with multi-family housing continuing to comprise a greater amount of total starts than it has historically, averaging ~25-30% of total housing starts versus an average of ~20% from 1991-2006 (Figure 1). This is notable as a multi-family housing unit utilizes only 30-40% of the wood used in a single-family home, given shared walls and exteriors. Based on TIG's analysis, on average, each single-family home (typically found in suburbia) consumes ~15,000 board feet of softwood lumber and ~10,000 square feet of panels (~3,100 board feet) while each multi-family unit (typically found in more urban settings) consumes ~5,000 board feet of softwood lumber and ~3,000 square feet of panels (~930 board feet). In terms of logs, each single-family home utilizes ~36,000 board feet while each multi-family unit utilizes ~12,000 board feet.

Year-to-date through July, housing starts have declined 3.6% averaging ~1.23 million units on a seasonally adjusted annual rate ("SAAR") following annual growth of 3.4% in 2018 and 2.6% in 2017 (Figure 2).

Figure 1. Single-family and Multi-family Housing Starts. Source: U.S. Census Bureau

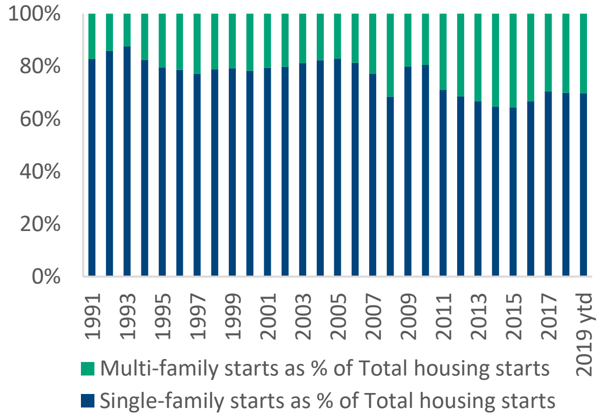
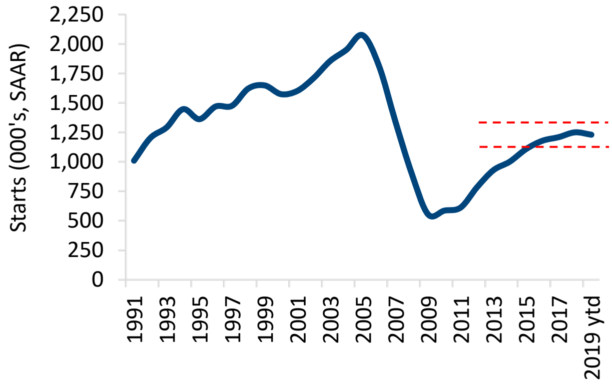


Figure 2. U.S. Housing Starts. Source: U.S. Census Bureau



U.S. South Sawtimber Inventories Elevated, but Poised to Decline

Since 2007, we estimate that privately-owned net sawtimber inventories (after annual removals/drain and including conversions of timberland into other uses) in the U.S. South have increased by 10-15% or ~25 billion board feet, relative to current annual U.S. South harvests of ~15-16 billion board feet. Prior to the Great Recession, inventory accounted for the equivalent of 12-13 years of annual harvests; today, inventory accounts for the equivalent of 16-17 years of annual harvests. Importantly, gross existing sawtimber inventory (before annual removals/drain/conversions) continues to grow by ~18-19 billion board feet (~9% growth versus 2018) annually.

Nevertheless, we believe that sawtimber inventories are approaching peak levels and will gradually decline as housing starts continue to increase and greenfield lumber mills are built in the U.S. South to meet this incremental lumber demand. Privately-owned sawtimber inventories could ultimately reach pre-recession levels by 2028, particularly as housing starts continue to modestly improve, driving increased lumber and sawtimber demand (Figures 3, 4 & 5). Meanwhile, any delay in a housing recovery relative to our expectations would simply further extend the sawtimber inventory recovery (e.g., if our expectations for housing starts in 2020 don't materialize until 2021, our expectations for a sawtimber inventory recovery would get extended by one year as well).

Figure 3. U.S. Housing Starts vs. Lumber Consumption. Sources: RISI; TIG Analysis

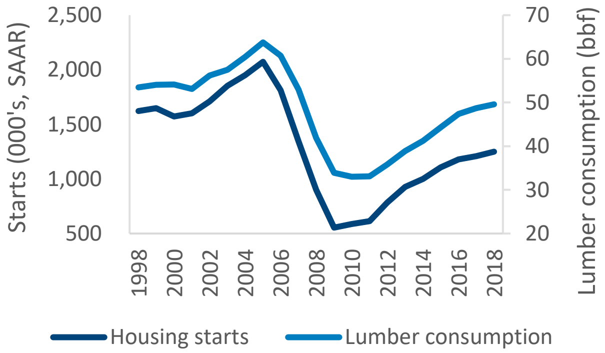


Figure 4. U.S. South Sawtimber Harvest vs. US Lumber Production. Sources: RISI; TIG Analysis

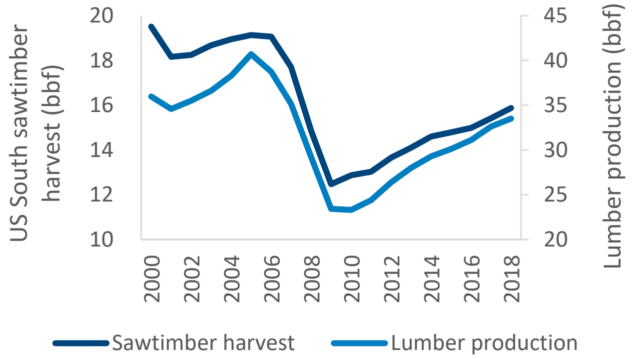
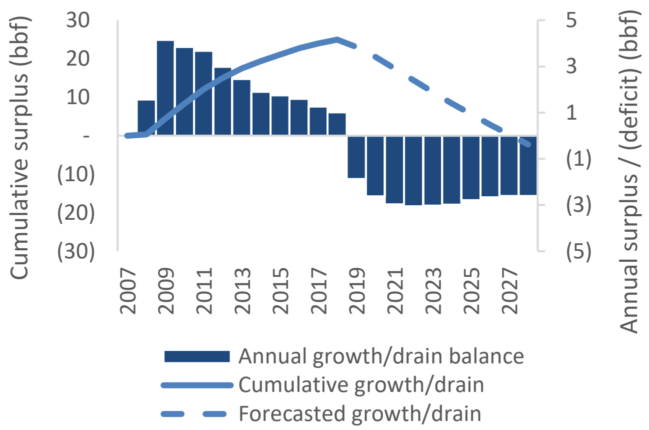


Figure 5. US Southern Sawtimber Surplus/Deficit & Forecast.

Sources: RISI; TIG hypothetical forecasts



Conclusion

In summary, despite our revised analysis extending the time it will take for U.S. South sawtimber inventories to come into balance by three to four years, we believe that U.S. South sawtimber inventories have peaked and are likely to gradually decline. We also note that select micro markets are already starting to come into balance, but in the short- to medium-term, we continue to believe that timberland with younger age-class distributions remain more attractive for acquisition.

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