



21 July 2022



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## Q2 2022 Market Trends-WillSonn Advisory

Please find attached the latest edition of my Market Trends report. Unlike much of the past few quarters, there was more conformity in market indicators – affordability, builder confidence, wood product prices and housing starts all finished the quarter down – as inflation and higher mortgage rates took hold. Log prices were mixed with western log prices moving sideways and southern stumpage prices giving back some of last quarter’s gains. Timberland values in the first half of 2022 caused some head scratching and may not reflect current market conditions as southern timberland values moved notably higher than 2021.

The Deeper Dive section will return next quarter as I take some time off. I hope you enjoy the rest of your Summer.

Best Regards,

Will

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# MARKET TRENDS

2<sup>ND</sup> QUARTER, 2022

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Perspectives on the latest market trends and indices impacting the Timber and Wood Products sectors, compliments of WillSonn Advisory, LLC



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# Q2 2022 HIGHLIGHTS

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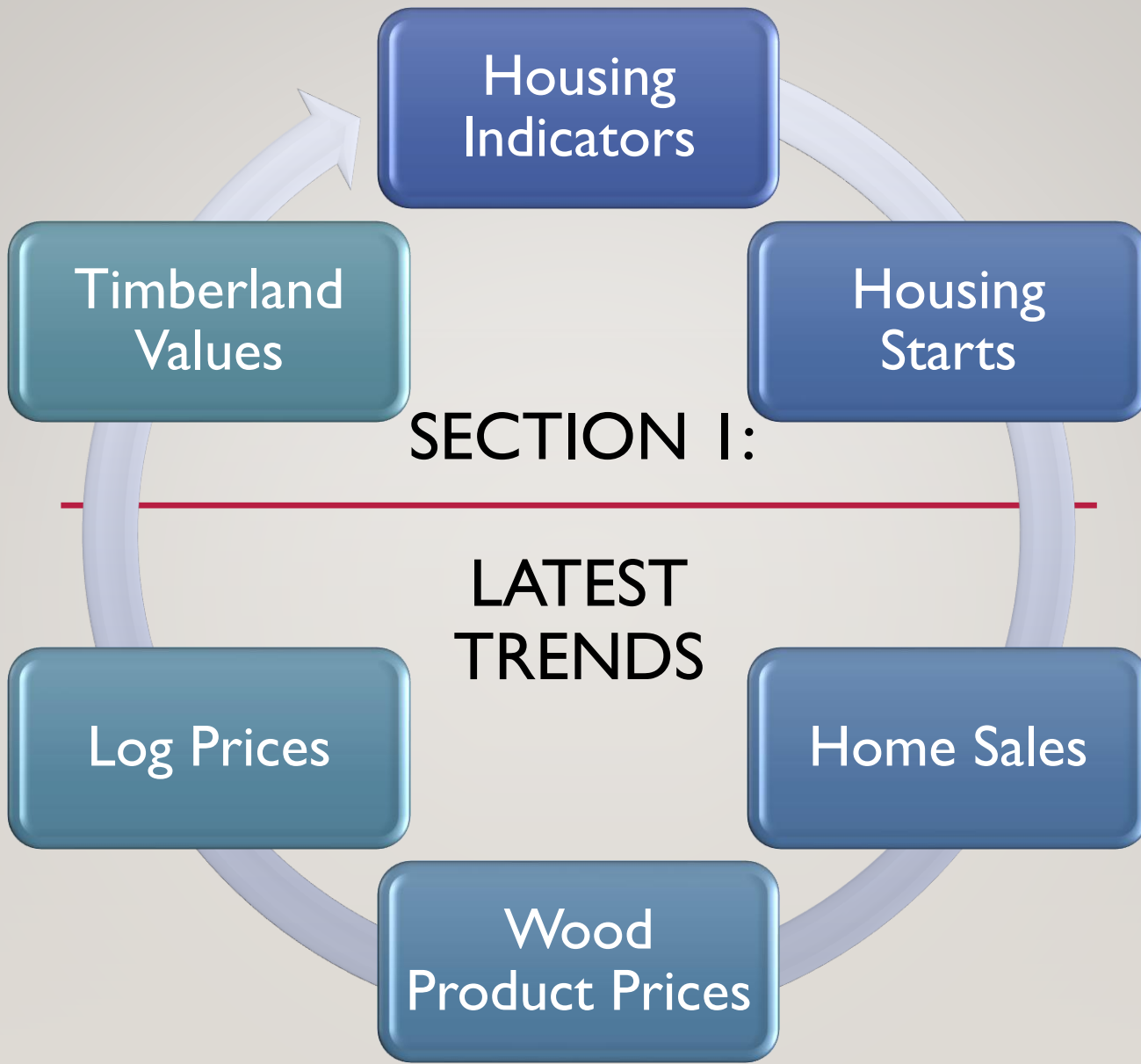
## Market Trends

- Builder sentiment retreats while spending remains robust (page 5-6)
- Housing Affordability dives as home prices and mortgage rates soar (page 7-8)
- Housing Starts shift towards Multi-Family sector (page 9-10)
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- Product Prices dive in Q2 as demand weakens (page 13-14)
- PNW and Southern Log prices move sideways, react to fuel prices (page 15-16)
- Gross sawmill margins retreat, NW mills claim a rare advantage (page 17)
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## In Case You Missed It

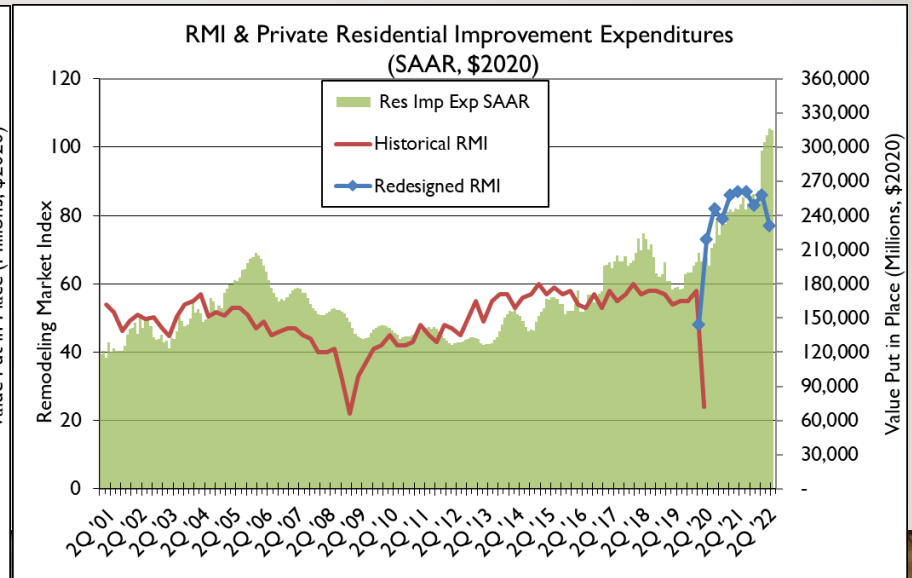
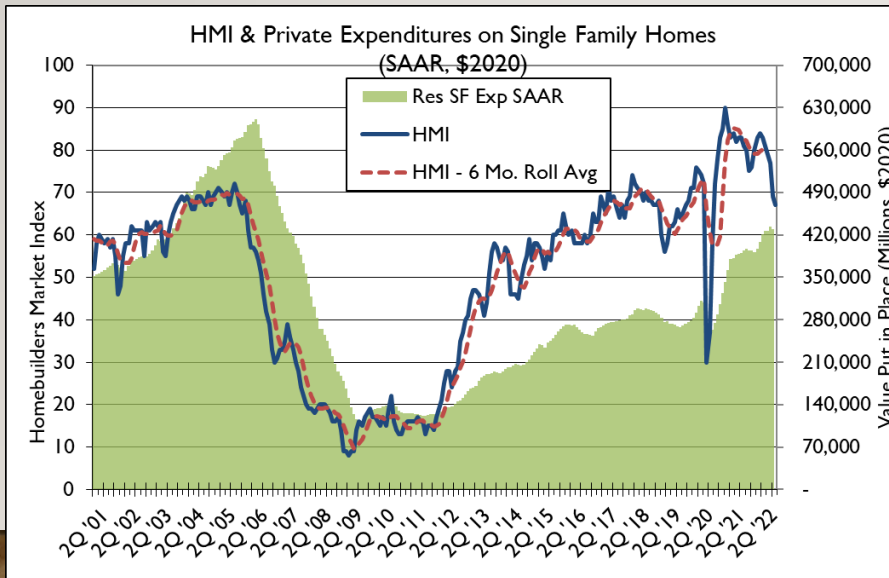
- Verra declines to adopt Tonne-Year Accounting for carbon offsets (page 20)

## About WillSonn Advisory, LLC



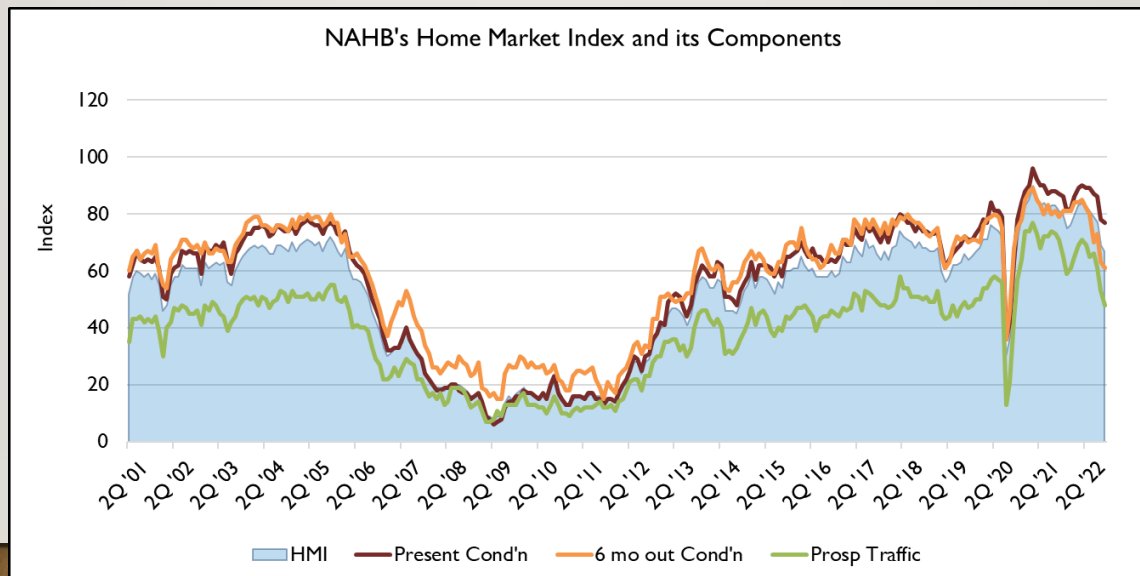
# BUILDER SENTIMENT & PRIVATE RESIDENTIAL EXPENDITURES

- **Recent Trends:** The Homebuilder Market Index (HMI) ended Q2 2022 with a reading of 67, down 12 points from the March 2022 reading. Likewise, the quarterly Remodeling Market Index (RMI) dropped to 77 in Q2 2022, down 9 points from Q1.
- YTD 2022 Real Expenditures on Single Family New Residential exceeded 2021 levels by 9.0 %, following a 29.2% gain in 2021. YTD 2022 Real Expenditures on Private Residential Improvement increased 22.9% above 2021 levels, following 2021's 15.9% increase.
- **Explanation:** Rising interest rates are dampening Homebuilder and Remodeler sentiment. Gains in home construction starts and remodeling in early 2022, along with rising labor and material costs, continue to push expenditures higher.
- **Implication:** Declining builder confidence generally bodes poorly for near to intermediate-term housing starts. Higher construction costs risk limiting the pool of qualified buyers and cause delays in construction. A resumption of pre-pandemic consumer interests (e.g., travel, eating out), along with rising inflation, may undermine strength in remodeling activity in later quarters.
- **Expectation:** As warned in past editions, in the longer-term, construction expenditures should continue to see expenditure growth slow or even contract, as lower building material prices make their way through the distribution channels. However, rising interest rates, constrained supply of existing homes, a dearth of developed lots, scarce labor and lower contractor productivity will keep residential construction and improvement expenditures elevated.



# BEHIND THE NUMBERS: BUILDER SENTIMENT & PRIVATE RESIDENTIAL EXPENDITURES

- NAHB's Homebuilder Market Index (HMI) and Remodeling Market Index (RMI) are measures of home builder and remodeling contractor sentiment.
  - In the chart below, you see the three components of the HMI – Present Condition, Condition 6 months out, and Prospective Buyer Traffic.
  - During the height of the pandemic, Prospective Buyer Traffic was much stronger than in prior good markets, both in terms of the absolute number, but also relative to the other two measures.
  - Also note that the “6 month out” component is much weaker than “Present” which is unusual, historically, no doubt impacted by the current and anticipated rises in interest rates.
- The monthly HMI and quarterly RMI are dispersion indices, measuring the proportion of respondents who have a positive versus negative view (neutral responses are ignored in the calculation). While a reading over 50 indicates a prevailing positive view of current and future conditions, it says nothing about the proportion in the neutral camp.
  - Note that the NAHB instituted a new RMI survey beginning in Q1 2020, such that comparisons to prior years are meaningless.

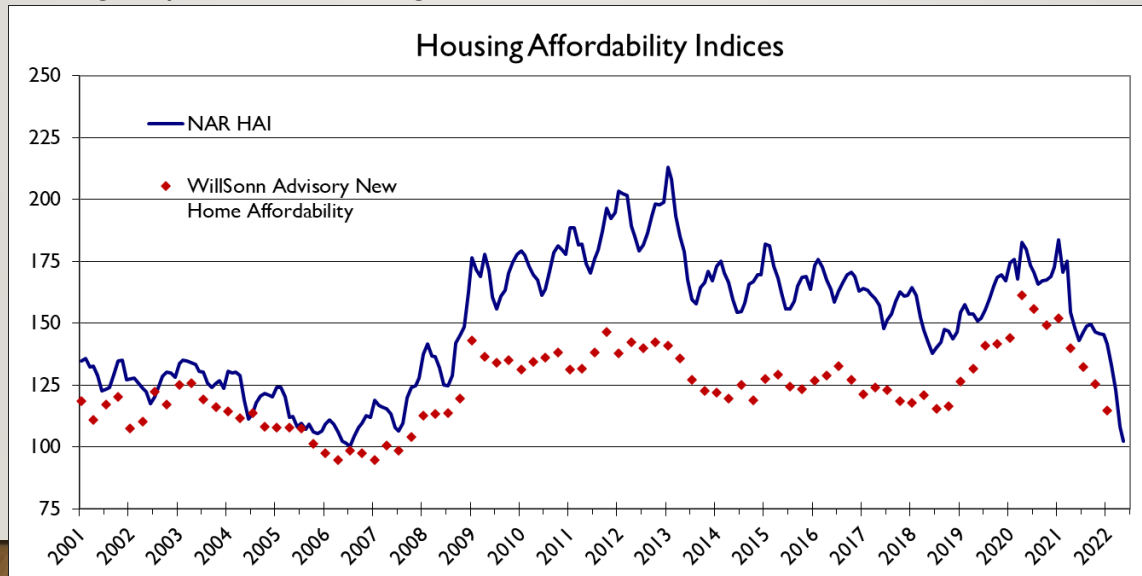


Data Sources: Census Bureau, FRED website

Charts & Analysis: WillSonn Advisory

# HOUSING AFFORDABILITY

- **Recent Trends:** The Housing Affordability Index (“HAI”) (blue line) has fallen from 186 in January 2021, to 102 in May 2022, a level not seen since 1990. The New Home Affordability (red diamonds), has retreated to 115 in Q1 ’22.
- **Explanation:** In 2019 and 2020, mortgage rates eased and median family income accelerated, bolstering this measure of affordability, but soaring home prices in 2021, and now, rising mortgage rates, are pushing affordability lower.
  - As cautioned last year, existing home affordability was overstated in late 2020/early 2021; bidding wars pushed transaction prices above listing prices in many markets and three stimulus checks artificially (and temporarily) boosted family income figures.
- **Implication:** Over the years, there is a rather weak link between affordability and housing starts (R-squared of just .19). In fact, the highest levels of housing starts occurred when affordability was in a trough (~2006). Thus, a “fear of missing out” may have spurred some home buyers to buy sooner than later, before home ownership was forever out of reach. Easy credit back then also helped.
- **Expectation:** The battle to temper inflation will continue to push mortgage rates higher while thin existing home inventories will keep home values elevated. Expect affordability to continue to remain under pressure in the coming months, but don’t worry too much about its impact on housing starts. Also don’t expect builders to pass along lower building material costs to buyers as lumber and OSB prices ease; rising labor costs are eating away at the added margin.



Data Sources: NAR, Census Bureau,, Dept. of Commerce

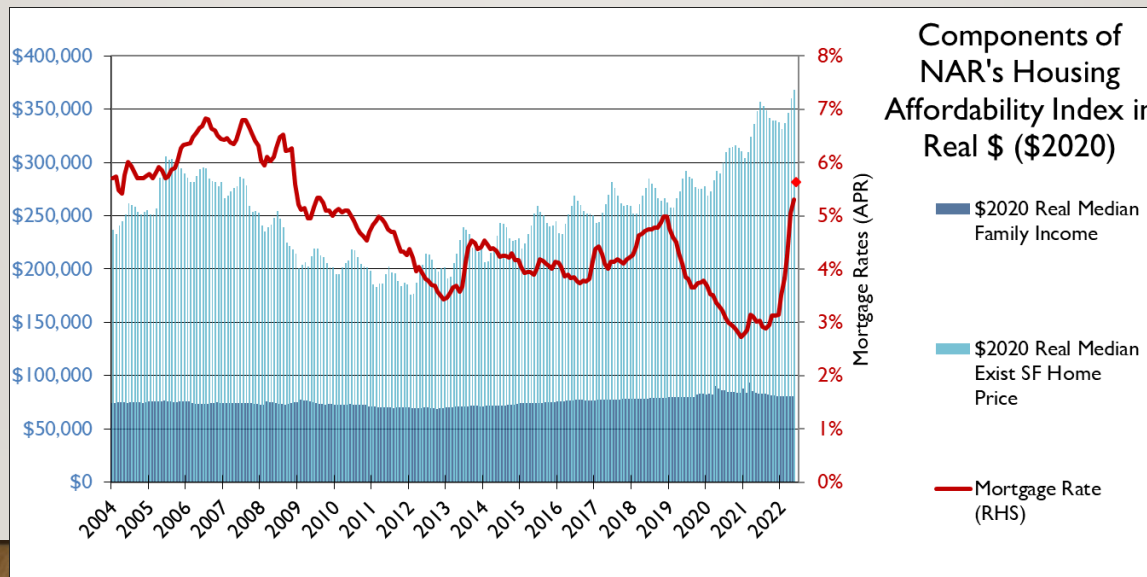
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# BEHIND THE NUMBERS: HOUSING AFFORDABILITY

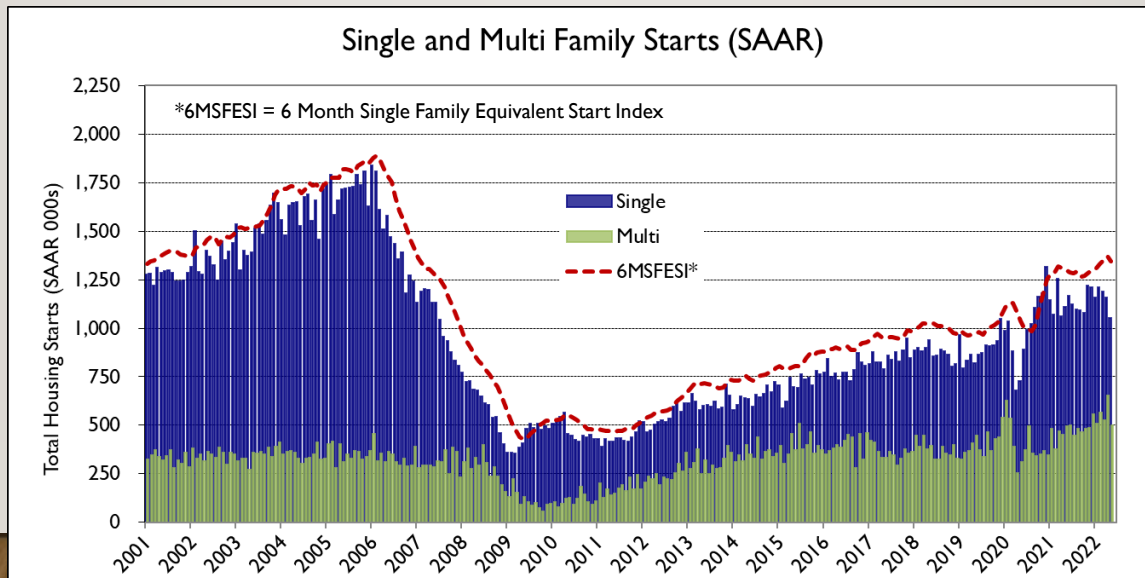
- This chart displays the movement in the three components of the NAR Affordability Index – home prices, mortgage rates and family income – in Real dollar terms. Adjusted for inflation, so far in 2022 compared to 2021, median home prices are up 3.6% while Median Family Income has fallen -4.1%. With Mortgage rates 53% higher, Mortgage Payments for the median priced home are now 30% higher eating up an increasing proportion of family income. All of this has resulted in a much lower Affordability Index.
- In May 2022, mortgage rates averaged 5.31%, 230 basis point higher than May 2021. Holding home price and income steady, a 50-basis point increase in mortgage rates drives the Affordability Index down about 10 points.
- The National Association of Realtors' Housing Affordability Index ("HAI") is based on three inputs: list prices of existing homes for sale, 30-year fixed mortgage rates and median family income. WillSonn Advisory's New Home Affordability uses the actual sales price of new homes, with the same income and mortgage rate figures as the HAI.
- A reading of 100 means that a family with median income would need to spend fully 25% of its monthly income on a mortgage to purchase the median priced existing home. A reading of 140 means that 25% of the median family income is 1.4 times the mortgage payment for the median priced existing home.



Data Sources: NAR, FRED website  
Charts & Analysis: WillSonn Advisory

# HOUSING STARTS

- **Recent Trends:** YTD Housing Starts have registered 1.7 million units, compared to 2021's total of 1.61 million units. Single Family Starts are up slightly (1.6%) while Multi Family Starts are up 14.5%, compared to 2021. May's preliminary reading of 1.55 million units is well below the revised April mark of 1.81 million units.
  - The WillSonn Advisory "6 Month Single Family Equivalent Start Index," recasts a multi-family unit into a single-family unit based on relative wood use, so a better measure of Housing Start's demand for wood. May's 1,345,000 unit reading represents 71% of the 2006 peak of 1.9 million SFES's.
- **Explanation:** Higher home prices alone were a threat to sustained gains in Housing Starts. Now, with rising interest rates and high inflation more than offsetting Family Income gains, aspiring homeowners are being forced to remain in the rental market, shifting the market from single to multi-family construction (and pushing rents even higher).
- **Implication:** Housing Starts account for 30%-40% of wood usage, so as housing goes, so goes lumber and panel demand.
- **Expectation:** With the chance of a recession on the horizon, Housing starts are expected to be under pressure over the next few quarters. In the longer-term, we can expect housing to continue to improve as the housing deficit is replenished and as existing home availability remains tight. Gains may also be tempered by limits on construction labor, developed lots, and tight lending standards.



Data Source: U.S. Census Bureau  
 Charts & Analysis: WillSonn Advisory

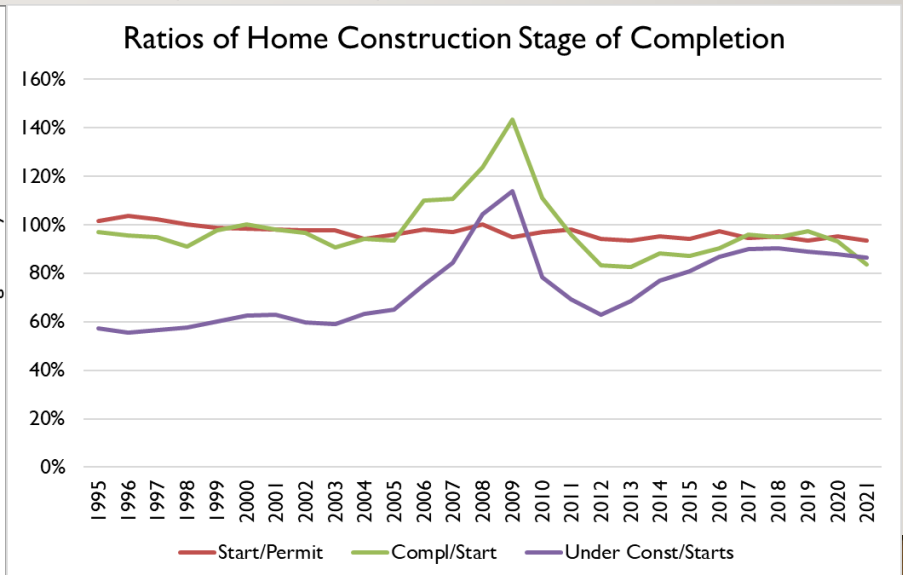
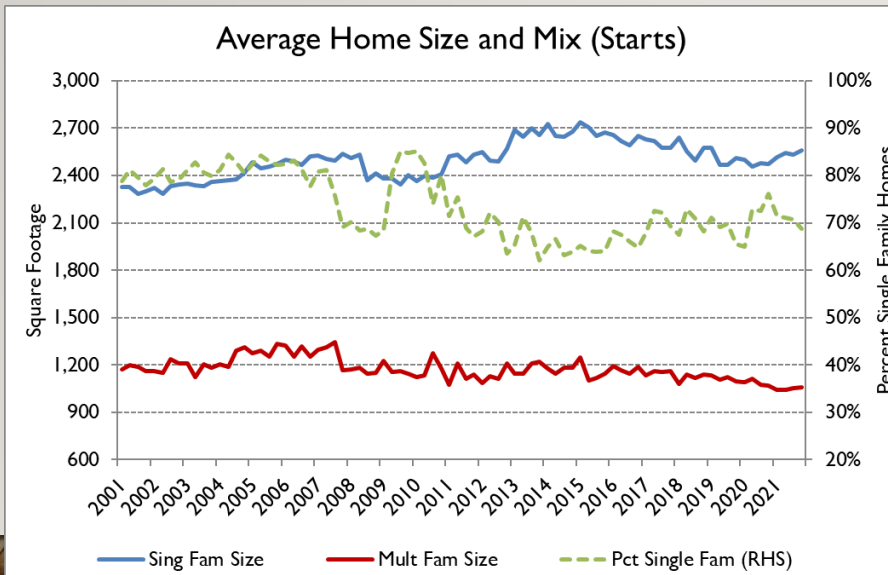


# BEHIND THE NUMBERS: HOUSING STARTS

- The size of Single-Family Home Starts through the four quarters of 2021 trended higher, averaging 2,537 sq. ft., up modestly 2.4% from 2020's average of 2,476 sq. ft. The average size of Multi-Family Units started in 2021 averaged 1,049 sq. ft., down -3.5% from the 2020 average of 1,087. Single Family units made up 70% of Total Starts in 2021, 2 points lower than 2020 and 12 points below the pre-bust average of 82%.
- Multi-family units use approximately 2/3 as much wood per square foot of construction compared to a Single-Family Unit, and since Multi-Family Units are about half the size of Single-Family homes, I count them as a 1/3 single-family-equivalent.
- The average number of Permits increased along with Starts in 2021, with Starts averaging 94% of Permits. In the bottom right chart, you can see that the ratio of starts to permits has been declining over time, such that the old rule of thumb of ~97 Starts per 100 Permits should be reduced to 95 or lower. Also declining is the ratio of Completions to Starts (the green line), which averaged just 84% in 2021. As noted earlier, the run up in construction material prices, along with supply chain woes and backlogged inspections delayed many completions in 2021. Thus, the number of homes under construction relative to starts remain elevated.

Data Source: U.S. Census Bureau

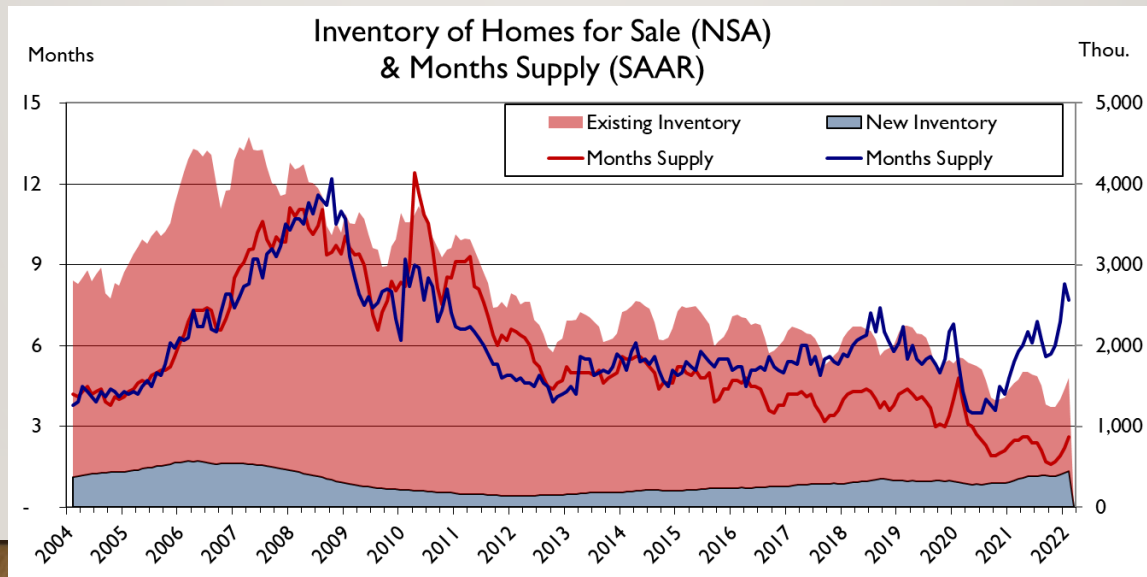
Charts & Analysis: Willsonn Advisory





# PACE OF HOME SALES & INVENTORIES

- **Recent Trends:** The Inventory of Homes For Sale (Existing + New) cycled higher to 1.604 million units in May, up 333,000 units from December 2021, and up 4% (67k units) from May 2021. Separately, Existing Home Inventories are down 50k units, while New Home inventories are up 117k units, compared to May 2021. At their respective current pace of sales, there are a scant 2.6 months of sales in Existing Home inventories, and 7.7 months of sales in New Home inventories. Five or six months is normal.
- **Explanation:** The inventory of existing homes has been suppressed as homeowners have stayed put, increasing tenure from six or seven years a generation ago, to nine or ten years today. New home inventories have recently recovered to the high end of the normal range as higher home prices and rising interest rates may be driving buyers to the sidelines.
- **Implication:** Tighter inventories are contributing to higher home prices, which in turn limits existing homeowners' options to purchase replacement homes, a vicious cycle. While New homes are a major user of building materials, many R&R projects occur within the first couple years of ownership, so lower Existing home turnover can have a negative effect on repair and remodel demand as well.
- **Expectation:** It is unlikely that the US housing market will return to basement levels of the early 2000's when lax mortgage standards tanked the housing sector. As expected, with rising mortgage rates, we are beginning to see Existing Home inventories recover and new home inventories build. At a minimum, a slower pace of home price growth is expected, and possibly a decline in some markets.



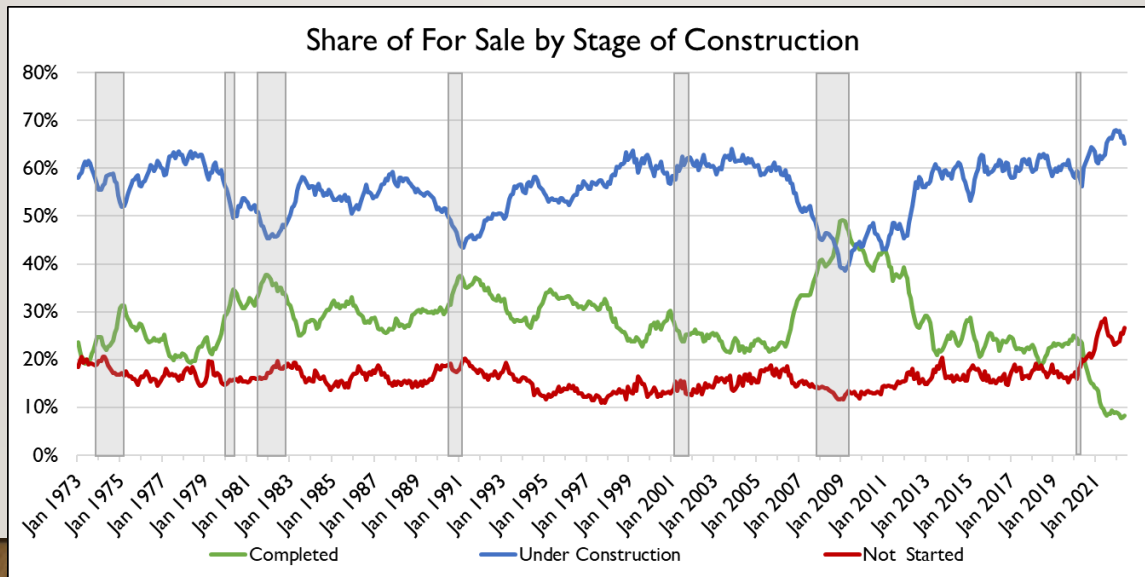
Data Source: U.S. Census Bureau, NAR

Charts & Analysis: WillSonn Advisory



# BEHIND THE NUMBERS: PACE OF HOME SALES & INVENTORIES

- In the chart below, I've plotted the share of homes for sale, by stage of construction. Also shown on the chart are the US recessions, in grey bars. What I notice in this chart is that a US recession is typically accompanied by a buildup (up to 30%+) in the share of Completed Homes for Sale and the longer the recession, the more pronounced the buildup of Completed Homes becomes. These patterns are typically mirrored by a decline in the share of homes Under Construction (as builders get stuck with more completed homes on hand).
- Of the 441,000 New units for sale at the end of May 2022, only 8% were Completed (a 47-year low), 65% were Under Construction, and 27% had Not Yet Started (just off its recent record of 29%).
- With the onset of the pandemic, and its impact on construction activity (slowed) and demand (heightened) we saw the inventory of homes Completed plummet, while the share of homes Not Yet Started climbed. High Building product prices likely delayed construction as builders passed off the risk of high material costs to buyers. At the same time, Completed homes got snatched up quickly.
- The inventory of New and Existing homes combines data from the National Association of Realtors ("NAR") which provides data for Existing home sales (both single and multi-family homes), and the U.S. Census Bureau, which provides data for New home sales (single family only). Inventory figures are not seasonally adjusted. ("NSA"). Months Supply is derived from inventories and monthly sales volume and are seasonally adjusted (Seasonally Adjusted Annual Rate, or "SAAR").

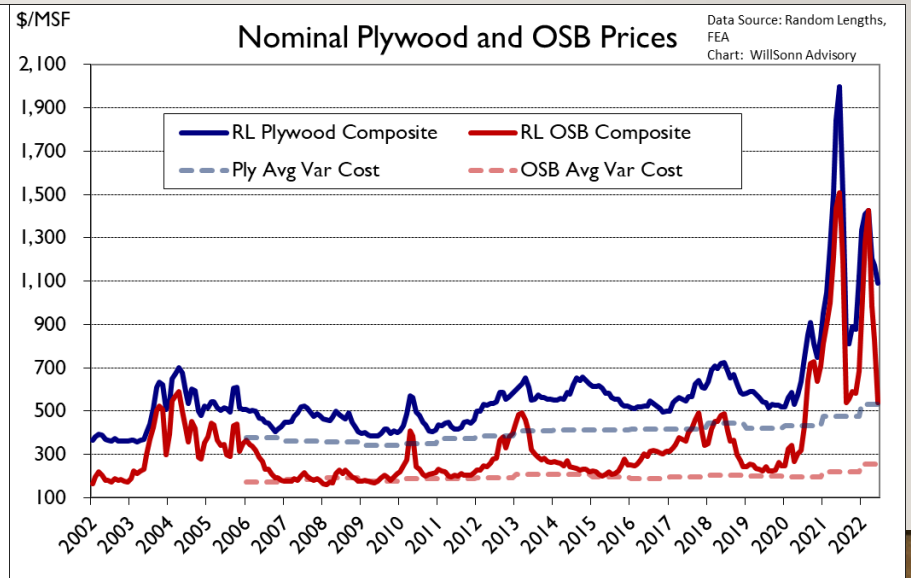
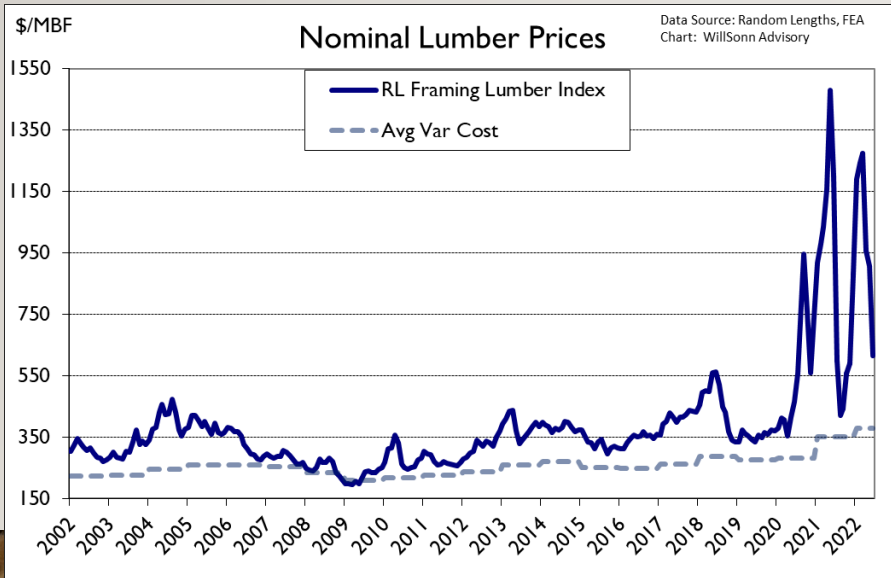


Data Source: U.S. Census Bureau, NAR  
Charts & Analysis: WillSonn Advisory



# WOOD PRODUCT PRICES

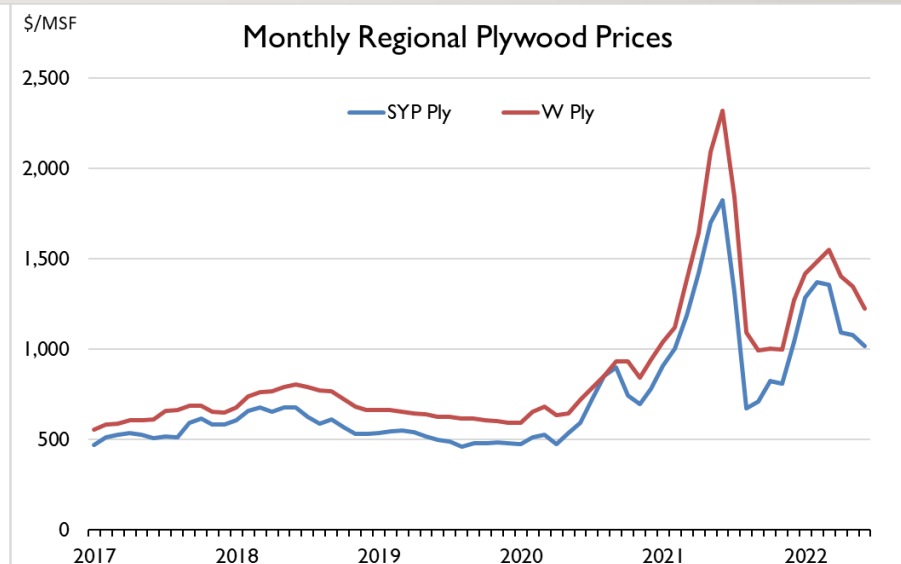
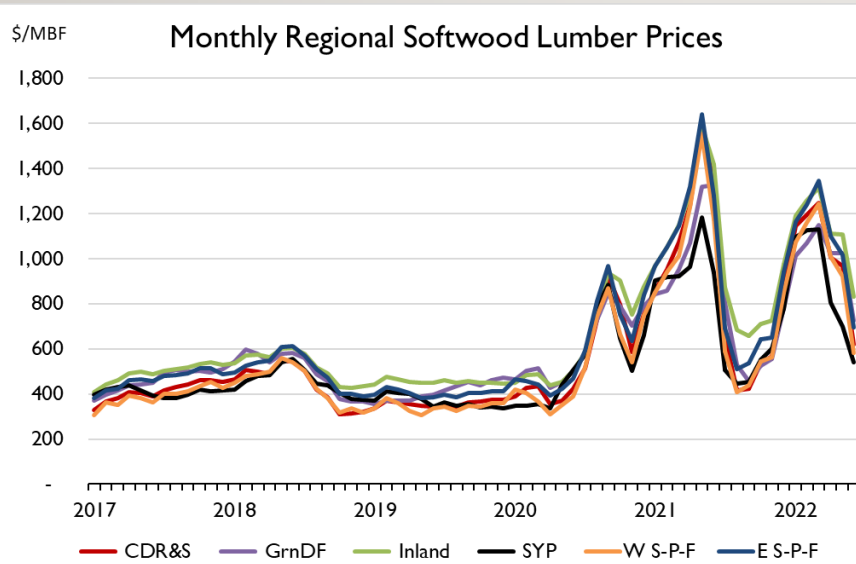
- Recent Trends:** The Random Length Framing Lumber Composite Index in Q2 2022 lost -33% from Q1 to register -3% below Full Year 2021 prices. Panel prices reversed course as well. Plywood pricing was down -17% in Q2 from Q1, -5% below FY 2021. OSB prices dove a whopping -36% in Q2 below Q1 prices, down -15% from FY 2021 prices. While off from recent peaks, prices for most products remain at or above peaks prior to the pandemic.
- Explanation:** Extreme price volatility in building products have materialized as manufacturers, construction and transportation sectors have wrestled with periodic labor tightness, rising labor and fuel costs, covid-related work absences and spot capacity closures for multiple quarters. As the nation navigated through new strains of the virus, changes in safety protocols, the “great resignation” and a desire to return to normalcy (including a return to the office), demand and supply for wood products has ebbed and flowed wildly.
- Implication:** As predicted, when cost for home builders and remodelers become excessive, some buyers delay, downsize or abandon projects, reducing demand and thus price. Historically, high prices spur additional mill shifts, a surge in imports and substitution from non-wood materials, each of which have been muted during the Covid-19 pandemic. Supply-chain woes are also adding to price volatility.
- Expectation:** As prices moderate and supply improves, builders and DIY demand should stabilize. It was hoped that vaccinations would also ease labor constraints, allowing for higher production and easing of transportation bottlenecks. But with multiple waves of covid variants, and now high fuel prices and a declining stock market, it’s hard to know when volatility will moderate.





# BEHIND THE NUMBERS: WOOD PRODUCT PRICES

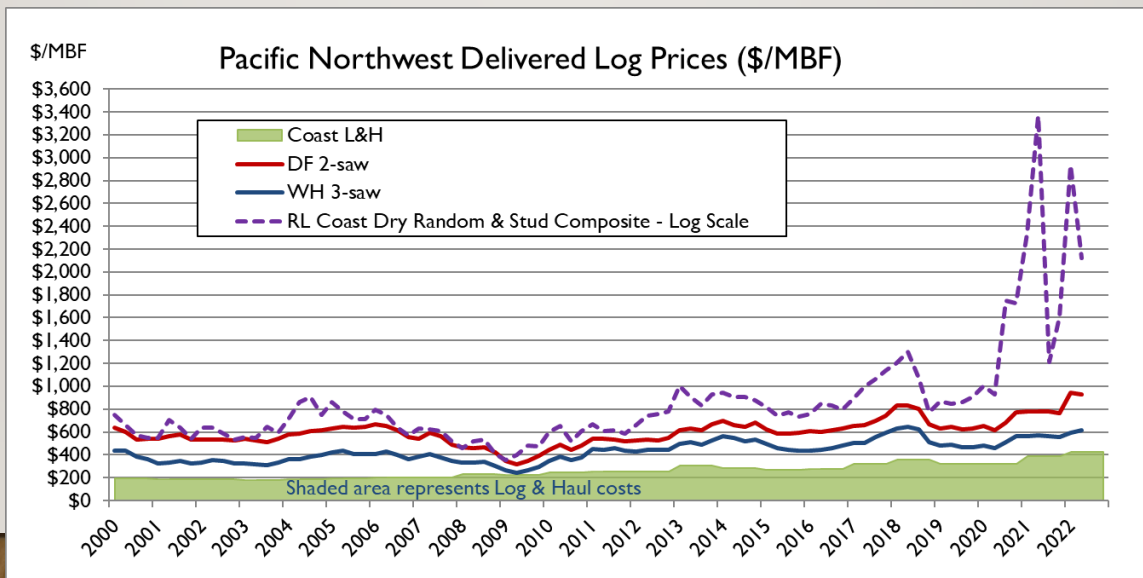
- All regions shared in the pain of retreating product prices during the second quarter of 2022.
- Regionally in Q2 2022 relative to Q1 2021
  - West Coast lumber mills saw a -28% decline in Coastal Dry Random & Stud (“CDR&S”) prices and a -14% decline in Green DF prices
  - Inland sawmills saw prices retreat -19%.
  - Southern Yellow Pine (“SYP”) sawmills saw prices sink -39%.
  - Canadian components of the Random Lengths Framing Composite Index saw S-P-F prices lose -28% and -25% in the West and the East, respectively.
- Second quarter plywood prices were also lower in both regions, with Southern Plywood prices down -21% and Western Plywood off a more modest -11% during the quarter.



# PNW LOG PRICES

- **Recent Trends:** Delivered log price movements were little changed in the second quarter with Douglas-fir 2saw prices off -1% (sitting 20% above 2021 levels) while western hemlock 3saw log prices moved up 3% higher (9% above 2021 levels). Over the past 10 years, 1<sup>st</sup> quarter DF log prices have typically slip -1% while WH prices gain 1%, so this quarter's movement were largely typical.
- After adjustments for changes in lumber recovery, the Random Lengths Coast Dry Random & Stud Composite price (on a log scale) lost over \$800/MBF (28%) during the second quarter.
- **Explanation:** With high end-use demand in the midst of constrained production, western mill throughput of logs has been only modestly higher. Extensive fires throughout the West in 2020 and 2021 resulted in extensive salvage operations in 2021. Robust lumber prices combined with constrained logging capacity has provided log sellers some measure of pricing leverage in 2022.
- **Implication:** Simply put, mills have been forced to pay higher log prices in order to capture record lumber prices entering the 2022 building season.
- **Expectation:** Third quarter price movement is usually mixed, with DF 2saw gaining \$4/MBF and WH 3saw dropping \$5/MBF over the past 10 years. Supply chains will likely remain choppy as access in the forest is limited in the short-term. Log & Haul costs are expected to remain elevated in 2022 due to tight labor and high diesel prices. With moderating lumber prices, some retreat in log prices are expected.

*Historically, with about a one-quarter lag, western lumber prices have been the primary driver in West Coast domestic log pricing, though changes in supply and export log prices do exert some influence.*



Data Source: Oregon DOF, WA DNR, Random Lengths, FEA, Log Lines

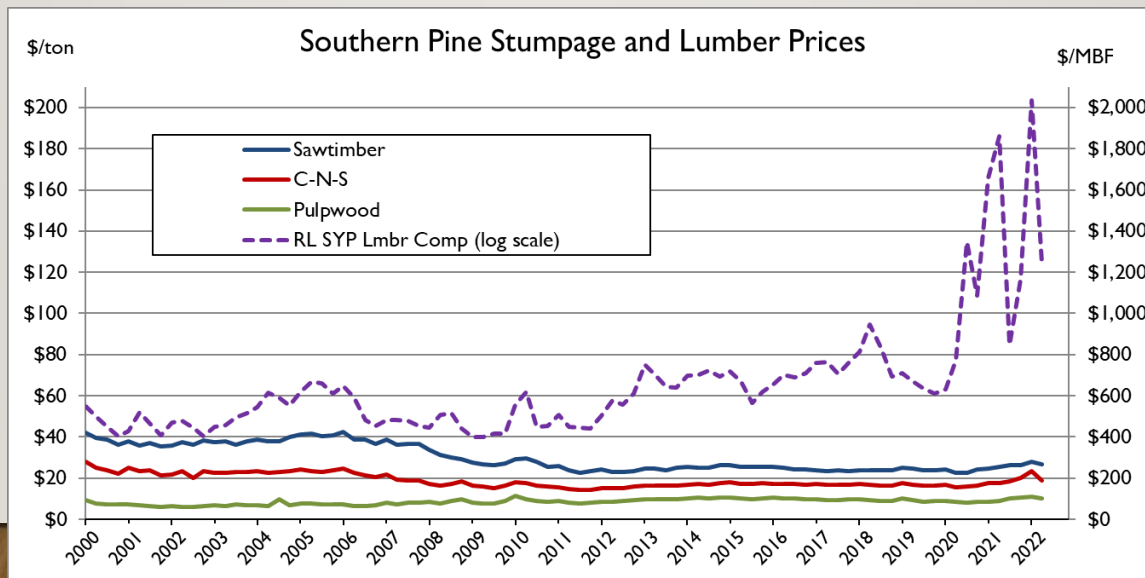
Charts & Analysis: WillSonn Advisory





# SOUTHERN PINE LOG PRICES

- Recent Trends:** Second quarter Southern Yellow Pine stumpage prices lost ground in each grade, with the biggest movement in Chip-n-Saw. SYP Sawtimber prices slipped \$1.22/ton in Q2 (-4%), Chip-n-saw stumpage prices dropped \$4.35/ton (-19%) and pine pulpwood shed \$1.12/ton (-10%). Relative to full year 2021, Q2 PST price is up 4%, CNS is up 3% and PPW is up 5%.
- The Random Lengths SYP Lumber Composite, adjusted for lumber mill recovery, dove \$794/MBF, or 39% in Q2 '22 compared to Q1 '22, now registering 10% below full year 2021's extraordinary prices (2021 was 44% above 2020 prices and more than double 2019).
- Explanation:** Q2 prices typically see prices retreat \$0.31-\$0.47 per ton as drier Spring weather sets in, so 2022's downward movement was exaggerated for all grades. Dramatic declines in lumber prices and soaring diesel prices drove net stumpage values lower. Despite record growth in lumber production, sawlogs remain plentiful in the US South.
- Implication:** Moving in tandem, Sawtimber to Pulpwood price ratios remained at 2.7:1 in Q1, on par with the 2.5:1 ratio of the last few years. With ratios below 4:1, landowners are less incented to grow sawtimber.
- Expectation:** Q3 prices typically see prices move sideways -\$0.15 to +\$0.05 per ton price as dry Summer weather allows good logging access. Even though Q1 2022 Sawlog prices hit a 12-year high (and CNS a 15-year high), my longer-term view has not changed; SYP sawtimber prices will remain under pressure for an extended period as plentiful inventory on the stump, modest gains in housing starts, increased plantation productivity, and incremental improvements in mill recoveries all work against significant gains in southern log prices.



Data Source: Timber Mart South, Random Lengths, FEA

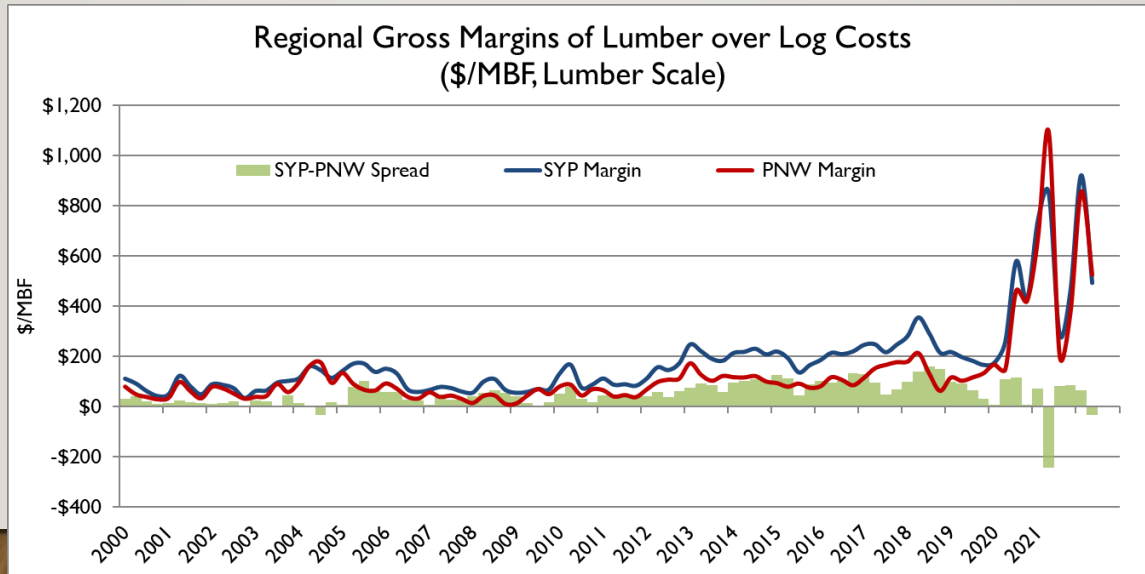
Charts & Analysis: WillSonn Advisory



# REGIONAL GROSS MARGINS

Sawmill Gross Margins (lumber price minus delivered raw material costs) in the Northwest and South were derived from the figures on the previous two pages. The difference in margins between the two regions is the “spread.”

- Recent Trend:** The gross margin spread between Southern and PNW sawmills flipped in Q2 to  $-\$33/\text{MBF}$  to favor of the Northwest, vs. a South advantage of  $\$64/\text{MBF}$  in Q1. The  $-\$33/\text{MBF}$  spread compares to an average spread in 2020 of  $\$60/\text{MBF}$  enjoyed by southern mills. Margins in volatile 2021 were at parity (on average). Gross margins contracted this quarter, from  $\$858/\text{MBF}$  to  $\$527/\text{MBF}$  in the PNW, and from  $\$923/\text{MBF}$  to  $\$494/\text{MBF}$  in the South. Since 2013, Southern sawmills have enjoyed gross margins over  $\$200/\text{MBF}$  in 28 of the last 38 quarters, while PNW mill gross margins hit that mark only nine times.
- Explanation:** Since 2012, log export markets and declining Interior BC lumber production pushed PNW log prices to historical highs. In the South, persistent excess inventories of mature sawtimber on the stump have kept downward pressure on log prices, even as lumber prices improved. Both regions saw gross margins expand during the pandemic-fueled run-up in lumber prices.
- Implication:** Manufacturing capital investments will continue to favor the US South as its margin advantage persists.
- Expectation:** I expect the spread between the PNW and South to settle in the  $\$50$  to  $\$100/\text{MBF}$  range when lumber markets settle down, in favor of the South. These spreads will persist until standing sawtimber inventories are worked down in the South over the next several years, or until expanded SYP lumber production pulls lumber prices down.



*Assumptions: 67/33 weight of DF2saw and WH3saw in the PNW, and a 75/25 weight for S/T and CNS in the South (using 7.5 tons/MBF, along with FEA's estimates of Cut & Haul cost for S/T and CNS). All figures are lumber scale, and regional differences in lumber recovery factors are incorporated.*

Data Sources: Timber-Mart South, Random Lengths, FEA, Oregon DOF, WA DNR

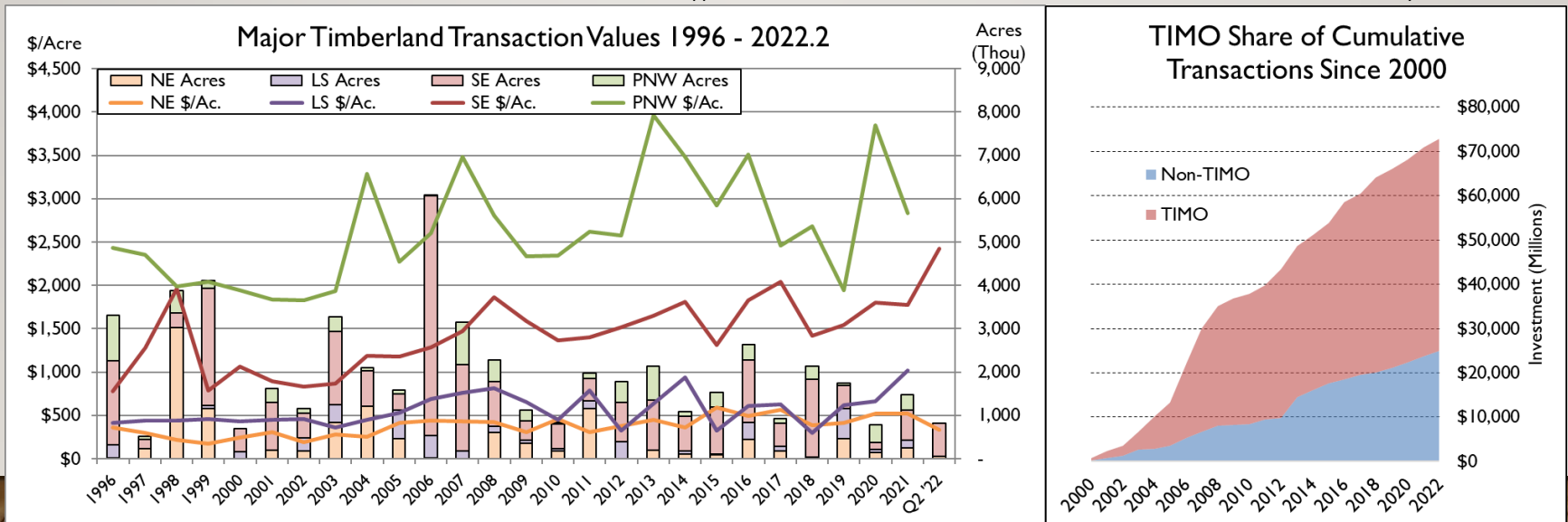
Chart & Analysis: Willsonn Advisory



# REGIONAL TIMBERLAND TRANSACTION VALUES

- **Recent Trends:** Timberland sales in 2021 totaled \$2.7 B on 1,549,000 acres, with another +/- 870,000 acres sold at undisclosed values. Through the first six months of 2022, eight transactions on 866,000 acres have been substantially completed, totaling \$1.9 Billion in value. Early values point towards strong timberland values for US South timberlands.
- By investment sector, Timberland Investment Management Organizations (“TIMOs”) have funded 67% of the acquisitions from 2016 to 2021, well above the 25% captured in the 2013-2015 period. By comparison, TIMO buyers acquired 78% of US timberlands sold (by dollar) in the previous 13 years (2000-2012).
- **Explanation:** Five of the eight sales were in the US South, two of them over 250,000 acres each, both of which sold to vertically integrated timber REITs. One transacted using equity shares rather than cold, hard cash. The other may have included carbon values.
- **Implication:** Rising asset values during periods of rising interest rates narrow the implied equity risk premium being paid for timberlands. Since owning timberlands is obviously more risky than holding government bonds, there must be some other value component forcing valuations higher.
- **Expectation:** In the near-term, integrated producers may continue to reinvest outsized lumber profits in timberlands. Longer-term, rising borrowing costs may erode value, but could be more than offset by buyers pricing in Carbon sales to bolster valuations.

NE: Northeast LS: Lake States SE: Southeast PNW: Pacific Northwest Not Shown: Appalachia and Inland Northwest Data Source: TMS, TMR, Press Releases Charts & Analysis: Willson Advisory





## SECTION 2:

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# IN CASE YOU MISSED IT



# VERRA DECLINES TO ADOPT TONNE-YEAR ACCOUNTING

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- [Verra Defers Updates to the VCS Program – Verra](#): “Verra will not move forward with incorporating tonne-year accounting into the VCS Program at this time. Verra reserves the right to revisit this decision in the future, after another consultation on this subject that considers feedback received during the most recent consultation (February – April 2022).”
  - Verra is an organizations that establishes project standards, develops the accounting methodologies, and serves as a registry for various voluntary carbon projects, including those involving forest carbon offsets.
- NCX, who was seeking Verra approval to use tonne-year accounting, also issued a statement, following the Verra decision: [A Response to Verra’s Decision on Tonne-Year Accounting – NCX](#)
- To gain a better understanding and (an unbiased) assessment of what tonne-year accounting is all about, please visit CarbonPlan’s website: [Unpacking ton-year accounting – CarbonPlan](#).
  - You may also want to review the Deeper Dive in the 2022 Q1 Market Trends report I distributed last quarter. Additional copies are available upon request.



## SECTION 3:

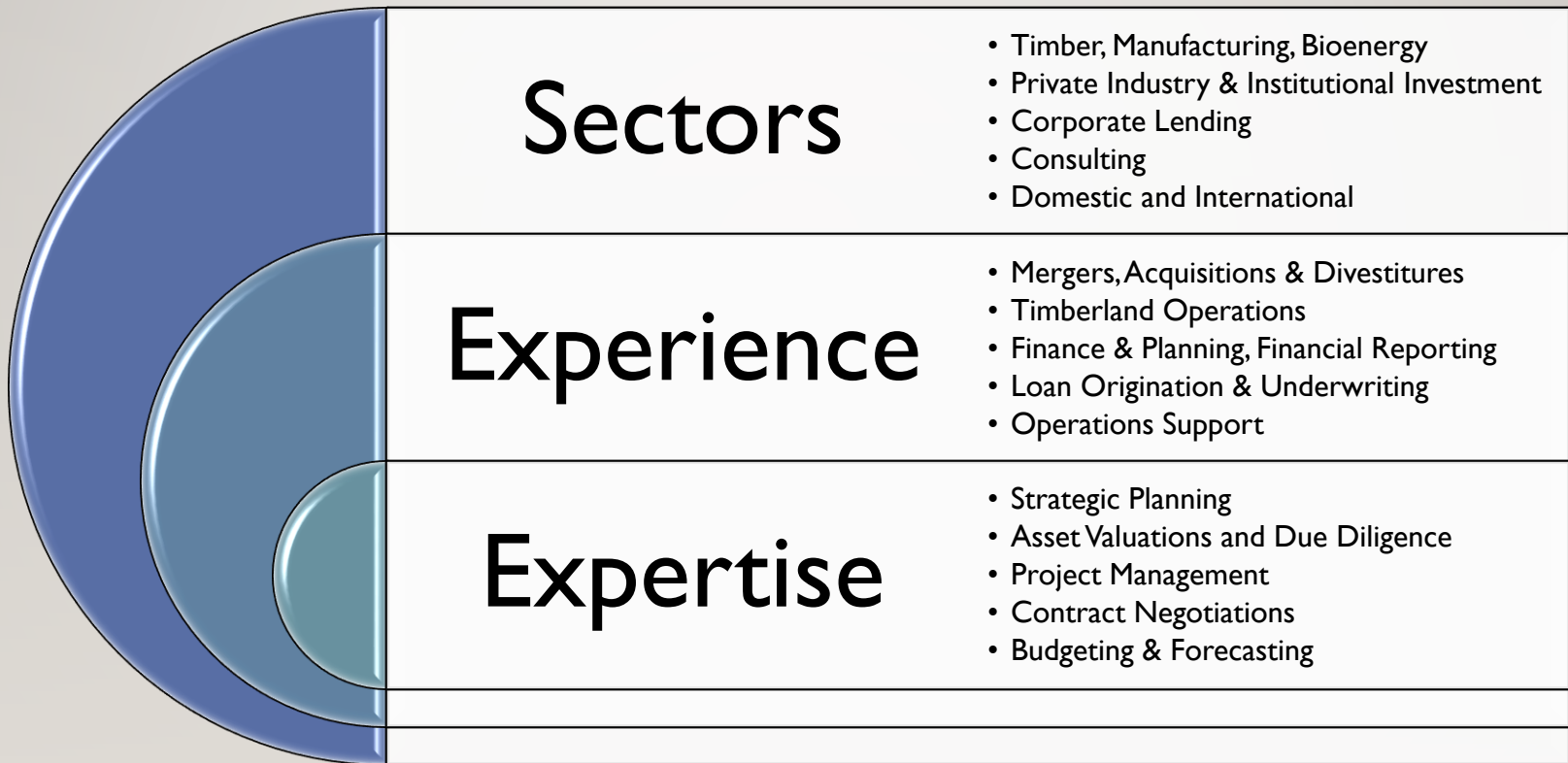
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# ABOUT WILLSONN ADVISORY, LLC



# CRITICAL EXPERIENCE FOR CRITICAL ENDEAVORS

WillSonn Advisory brings senior management experience, across multiple sectors of the wood products industry, with expertise in leading an array of strategic initiatives.



# WILLSONN ADVISORY SERVICES

- Timberland & Mill Valuations
- Acquisition “Post-Mortem” Audits
- Conversion of Acquisition Pro Forma to Lender Financial Projections
- Acquisition and Operational Due Diligence
- Development of Company Enterprise Valuations
- Incorporating Economic Forecasts into Business Plans

## Business Assessments & Due Diligence Services



- Acquisition and Divestiture Process Management
- Conduct Regional or Global Market Studies
- Plan and Oversee Inventory & GIS Projects and/or Audits
- Independent Review of Harvest Flow Projections and Processes
- Prepare Offering Memorandums and Prospectuses

## Project Management Services



- Fiber/Log Supply Agreements
- Purchase & Sale Agreements
- Timber Deeds and Leases
- Conservation Easements & Carbon Projects
- Service and Offtake Agreements
- Joint Ventures & Partnerships
- Contract Negotiating Strategies

## Contract Structuring and Negotiation Services



- Strategic Plan Process Design, Facilitation and Documentation
- Company Specific Price, Supply and/or Demand Forecast Development
- Contingency Plan Development and Monitoring
- Financial Planning and Capital Restructuring
- Work-out Strategy Development
- Capital Investment Assessments

## Strategic Planning & Business Restructuring Services



- Validate Acquisition Valuations & Due Diligence Procedures
- Evaluate Existing or Proposed Agreements or Easements
- Interpret Annual Management Plans & Appraisals
- Examine Proposed Transfers of Ownership
- Review Divestiture Timing & Strategies
- Track Investment Performance

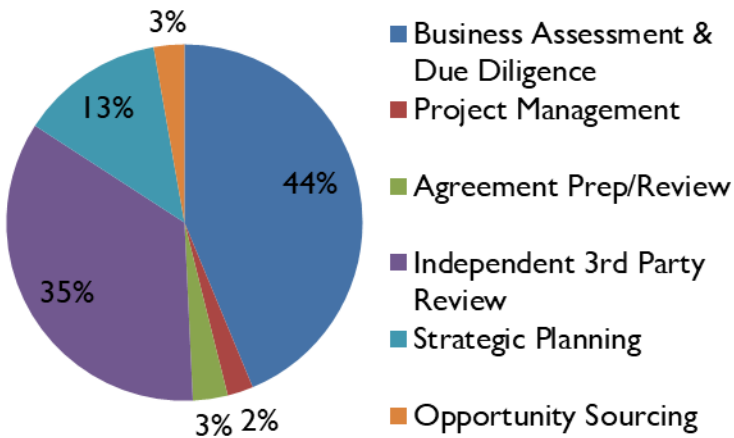
## Institutional Investor Services



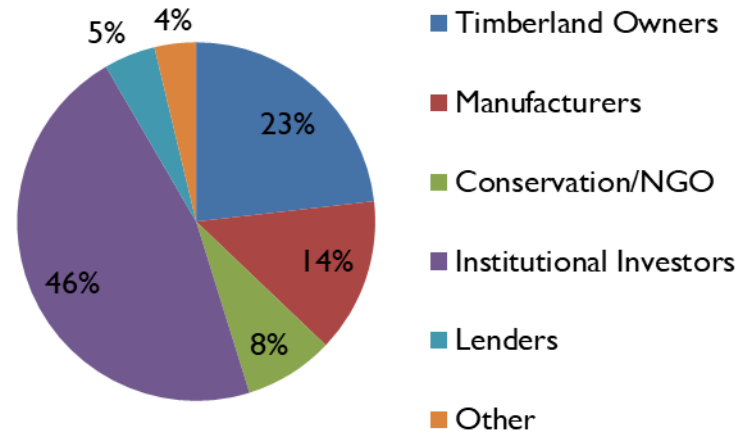


# ENGAGEMENT PROFILES

## Services Provided 2009-21

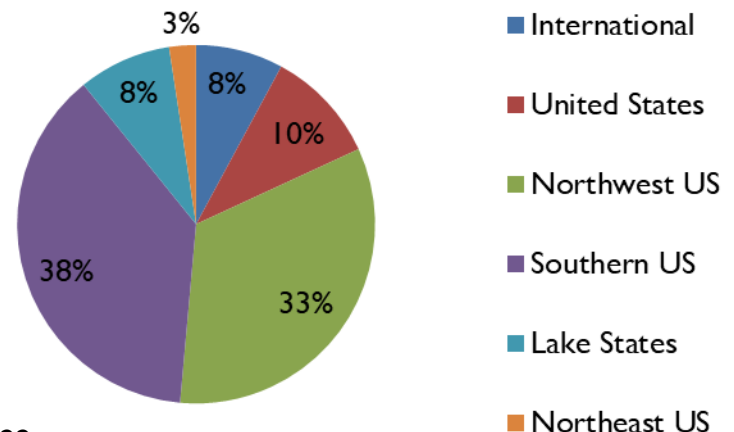


## Customers Served 2009-21



Since 2009, Will Sonnenfeld has provided a broad range of consulting services to dozens of clients across the full spectrum of industry sectors, in all regions of the US and abroad.

## Regions Covered 2009-21





I look forward to receiving any comments or questions you may have and would welcome the opportunity to serve your consulting needs.

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