

YOUR BUSINESS BLOOD PRESSURE



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OPPORTUNITIES

- * Economic conditions
- * Wood availability & quality
- * Employee issues
- * Manufacturing Efficiency

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ECONOMIC CONDITIONS

* OPPORTUNITIES

Are HOUSING STARTS an indicator of demand for wood cabinets, flooring, millwork, furniture?

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HOUSING STARTS January - August 2019

Single family. 598,000 units

South, 51%; West, 27%; Midwest, 16%;
Northeast, 7%

Multi family. 253,000 units

South, 53%; West, 18%; Midwest &
Northeast 15% each

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Housing Starts

Down 3% compared to 2018

Market fluctuates month to month.
±10%?

Shortage of house framing lumber is pushing prices up. Minor hurricane season in U.S. is pushing prices down. Low interest rates holding prices down.

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Housing Starts

Shortage in basic wood trades, like carpenters, means slower building times and pressure to raise wages to get new employees.

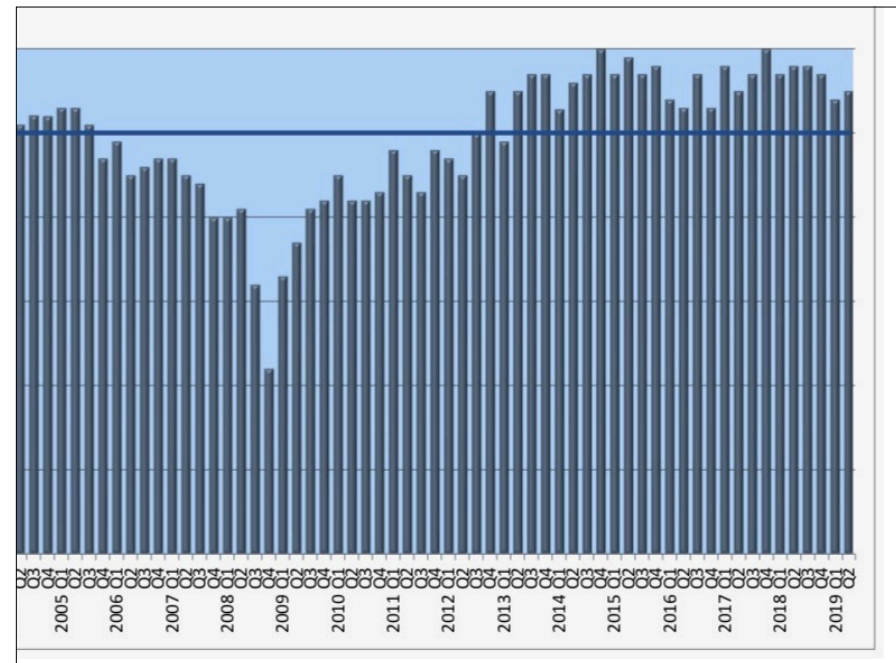
Demand for housing exceeds supply.

Contrast between wage and salaried employees

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REMODELING MARKET IS ABOUT THE SAME FINANCIAL SIZE

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**HOTEL & MOTEL- -
OCCUPANCY CONSTANT
FOR LAST THREE YEARS
AT NEAR RECORD HIGH.**

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U.S. POPULATION IN 2019

- One birth every 8 seconds
- One death every 12 seconds
- One immigrant every 33 seconds

**BOTTOM LINE: One person increase every
13 seconds or 2.4 million per year**

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**BIG QUESTION:
WILL IT BE WOOD?**

**For cabinets, furniture,
flooring, millwork?**

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**WILL IT BE WOOD- -
Made in USA?**

**Past- - 38% Asian
22% European**

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ASK YOURSELF

- Why would someone buy foreign-made?

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-- Higher quality? 👍👍 ✨

-- Faster delivery? 👍👍 ✨

-- Better appearance? 👍👍 ✨

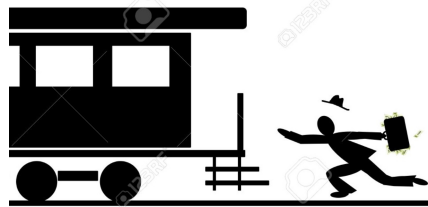
-- Easier to purchase? 😬

-- Lower Price? 😬

-- Longer lasting? Better built? Made in USA? 😴

-- More customer oriented and friendly? ❤️❤️

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SOLUTIONS

#1. DETERMINE QUALITY, as defined by customer.

(aka Marketing)

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SOLUTIONS

**#2. DELIVERY in days;
build inventory in a
recession?**

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SOLUTIONS

**#3. CONTROL COST
by improving efficiency**

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RESOURCE AVAILABILITY

Loss of China lumber markets (25% to 30%
in the past) and of other countries mean

- * Short term surplus of lumber
- * Drop in prices
- * Sawmills struggling to make a profit

(Accumulate wood inventory?)

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RESOURCE AVAILABILITY

Price drop and less production for hardwoods means loggers are finding other jobs.

Shortage of logging truck drivers.

IT WILL TAKE TIME TO GROW AGAIN.

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RESOURCE AVAILABILITY

RR will not run out of ties, so they can get wood at any cost.

Barrel industry can afford wood at any cost.

Shipping industry will make pallets.

Large companies can pay for wood.

(For us: Lumber shortage and higher prices)

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RESOURCE AVAILABILITY

SOLUTION #1: Get involved financially with sawmills, logging and forests. Why? To control availability and price.

SOLUTION #2: Consider non-solid wood options.

SOLUTION #3: Increase efficiency; reduce waste.

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EFFICIENCY

Around 70% of the manufacturing cost is wood raw material. So, lower wood costs by improving efficiency.

Employee efficiency (less waste)

Machine efficiency (less waste)

Purchasing efficiency

Purchasing changes- -solid vs. composite; precut

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EMPLOYEE EFFICIENCY

7% yield difference between employees in cut-up operations.

We can motivate employees to do better.

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MACHINE EFFICIENCY

Scanners & computers make several percent positive difference (less waste).

Rip kerf...	4%
Crosscut kerf...	0.3%
Edge scrap...	8%
End trim...	4%
Knots, etc...	10%
Length	6%

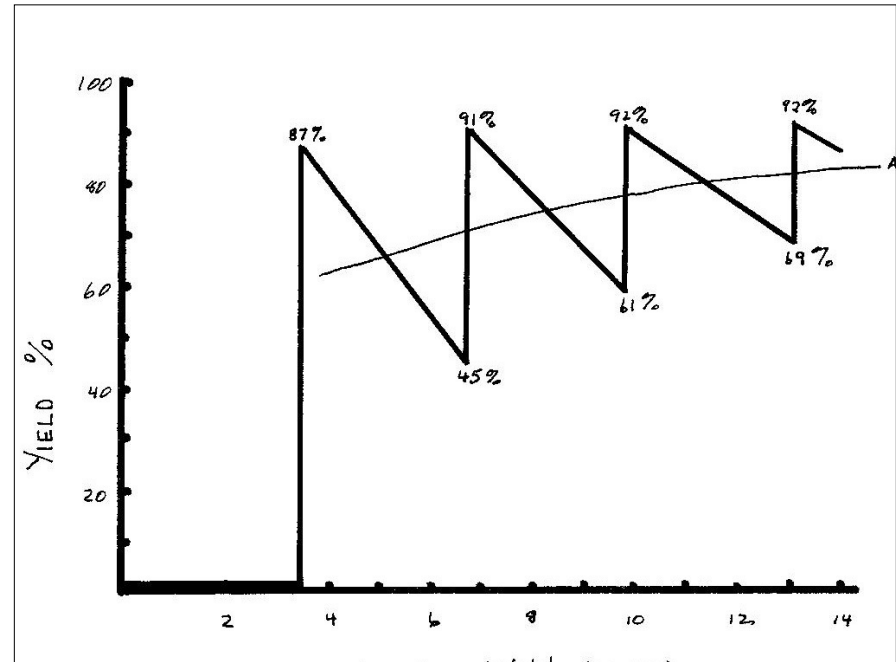
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PIRCHASING EFFICIENCY

Solid wood grade, size, etc.

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Part size (in.)	:	Lumber grade		
		FAS	No. 1	No. 2
3 by 40	:	56	42	29
RW by 26	:	15	22	22
RW by 15	:	5	8	6
TOTAL	:	76	71	59

Note: FAS 1-Face = No.1 Common yield of C2F cuttings

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MANAGEMENT

Measure Roughmill
Performance- -

\$ of raw material /sq. ft. of
product

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WOOD PURCHASING CHANGES

Solid vs. mdf

wpc

thermally modified,

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PLANT EFFICIENCY

FIND MARKETS OR PRODUCTS FOR YOUR WASTE

AVOID MAKING WASTEFUL DECISIONS

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MARKETING

WHAT MORE CAN WE DO?

ADVANCED MARKETING

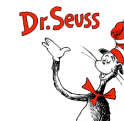
Ooze quality (strawberries and underwear example)



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Only YOU can
control YOUR future.



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