Forisk Strategy Note, Q1 2020

Assessing Risk and Prioritizing Next Steps: Real Time Lessons from the Coronavirus in the Forest Industry

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Summary Messages

- Business strategies and investment decisions leverage points of view based on understanding of available data. This Note shares lessons for where to focus attentions and energies as the coronavirus, and other economic headwinds, work through the system.
- We apply simple frameworks to assess potential disruptions, though we avoid conducting such analysis in isolation. Therefore, we test and supplement the analysis with scenarios.
- Forestry teaches us much that is relevant to thinking through the coronavirus. Collect data. Understand sample sizes and growth patterns. Develop management plans based on frameworks and scenarios. Communicate. With a clear sense of where we are and how things work, it's easier to organize and get moving.

Introduction

The coronavirus pandemic presents two specific risks to most of us. One, we transmit the virus to someone vulnerable (older, ill, or immunocompromised). Two, we or someone we love gets sick or injured in some other way and cannot access the health care system because it's overwhelmed. These risks highlight the interconnected nature of the situation. Our individual choices affect others and the choices of others affect us.

Given the personal risks, how do we contemplate a path forward with our teams and at work? Normally, we develop plans based on scenarios that specify factors to watch. We do this all the time for timberland investments and in the forest product sector. However, it's hard to build scenarios when you don't know where to start because the data you need remains unavailable.

Planning, managing and investing require decisions based on information. In the forest industry, we want to screen and rank changes that could affect the value, viability and cash flow generation of forests and wood-using mills for employees and investors. Our previous Forisk Strategy Note shared observations from the pulp and paper sector associated with the role and influence of technology in the forest industry.[1] This Note shares lessons and recommendations for where to focus attentions and energies as the coronavirus, and other economic headwinds, work through the system.

Economic Situation

On March 3rd, 2020, the Federal Open Market Committee (FOMC), the branch of the U.S. Federal Reserve that oversees the money supply and interest rates (monetary policy), decided

[1] "Technology in the Forest Industry: Observations from Pulp and Paper," *Forisk Strategy Note, Q3 2019*. Available at: http://forisk.com/resources/white-papers-and-articles/#forisk-strategy

to reduce its target range for the federal funds rate by ½ percentage point (50 basis points). The FOMC press release[2], which opened with "the fundamentals of the U.S. economy remain strong," required reading between the lines.

Extremely low risk-free rates express market pessimism rather than the potential for rapid growth.[3] The aggressive move by the Federal Reserve to lower interest rates made investors wonder, "what does the Fed see? Do we have a clear view of the stakes?" The action communicated a lack of confidence and heightened uncertainty for the U.S. economic outlook.

Markets responded. The S&P 500 ended the day 3% lower and U.S. 30-Year Treasury yields closed March 3rd at 1.64%, down 29.6% since the start of 2020. The rate change by the Federal Reserve, which occurred between scheduled FOMC meetings for the first time since 2008, signaled worry about recession risks and our ability to manage them.

Framing Disruptions

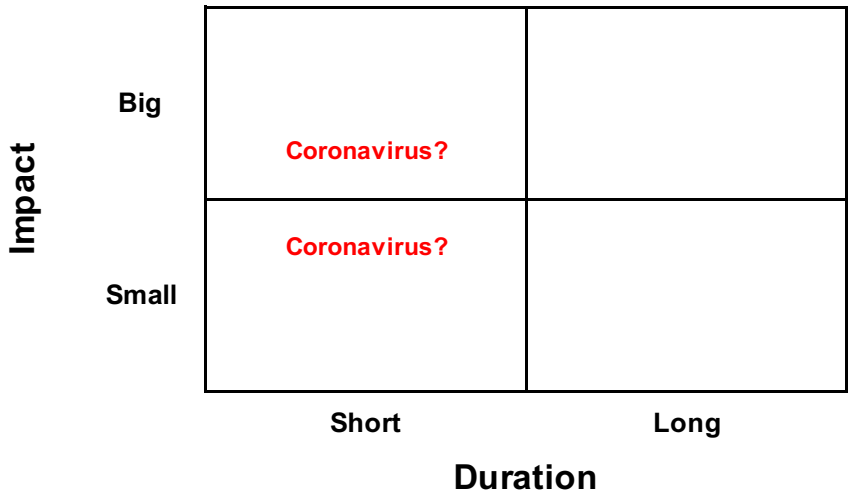
How can we frame potential disruptions specific to the coronavirus? In 2018, we shared our framework for thinking through potential disruptions and how they affect timber markets and forest investments.[4] It starts with two simple questions:

- Big or small? In other words, how impactful, whether positive or negative, would we expect this disruption or change to be on forest supplies or wood demand?
- Long or short? What is the likely duration, whether positive or negative, of this disruption or change on supplies or demand (in the market or industry)?

Consider one view on the exposure of timberland owners to coronavirus-specific disruptions:

- Big or small? No forest supply effect with varying local impact on wood demand.
- Long or short? Short-term decrease to demand; no long-term impact on value.

Figure 1. Mapping Potential Timberland Owner Disruptions Specific to Coronavirus



[2] "Federal Reserve Issues FOMC Statement", March 2, 2020, available at: https://www.federalreserve.gov/newsevents/pressreleases/monetary20200303a.htm
[3] "Discount Rates and the Coronavirus", February 26, 2020, available at: https://forisk.com/blog/2020/02/26/discount-rates-and-the-coronavirus/
[4] "Thinking Beyond Deviations: Changes that Could Disrupt the Forest Industry", August 27, 2018, available at: https://forisk.com/blog/2018/08/27/thinking-beyond-deviations-changes-disrupt-forest-industry-part-ii/

Graphically (Figure 1), the framework affirms the expected short-term impact from the coronavirus in isolation. Its current progression mirrors previous pandemics; it will likely be in the rear-view mirror one year from now assuming a semi-orderly federal response. If so, investors will still hold timberlands.

The framework reminds us to beware analysis in isolation. The coronavirus epidemic occurs in a larger context, one where trade policy impacted the forest industry and global economies began slowing in 2019. So, the total magnitude of the disruption, the coronavirus in a recessionary environment, is unclear. Will it simply slow wood demand for part of 2020 or will it carry over to 2021 and beyond?

Applying Scenarios

For the forest industry, primary concerns are housing and "aggregate demand," which is the three-dollar term referring to everything we buy at any given time. Prior to the coronavirus, industry capital investment and housing markets looked strong yet constrained, as builders grappled with scarce skilled labor and increasing costs for building materials.

We typically include at least three scenarios for timber and log price forecasts in our quarterly research[5] to help clients test and contemplate key assumptions. For this illustrative analysis, we include the Base and Slow Case scenarios from the Q1 2020 *Forisk Research Quarterly* (*FRQ*) to provide our "pre-coronavirus" baselines and add three scenarios to evaluate three "shock levels" on GDP, housing starts and demand for softwood lumber in the U.S.

- Shock One strips the equivalent of GDP growth for one quarter (3 months of 0% spread out over the rest of the year) and housing starts for one month from the 2020 Forisk Base Case.
- Shock Two bakes in two quarters 0% GDP growth and two months of lost housing starts.
- Shock Three pauses GDP growth for three quarters and reduces housing by three months.

Figure 2. Illustrative Macro Scenarios for U.S. Softwood Lumber Demand

Scenario	2020 GDP	2020 U.S. Housing Starts	2020 U.S. Softwood Lumber Consumption
	% growth	*millions*	*% change from 2019*
Forisk Jan 2020 Base*	2.1%	1.3473	2.7%
Forisk Jan 2020 Slow*	2.1%	1.3186	1.5%
Shock One	1.6%	1.2350	-6.8%
Shock Two	1.1%	1.1228	-13.2%
Shock Three	0.5%	1.0105	-18.7%

**Forisk Base and Slow Cases as of January 2020 from Q1 2020 Forisk Research Quarterly (FRQ)*

It's hard to make up for lost time. A one-month shock, from a U.S. softwood lumber standpoint, would mirror volumes consumed around 2015. However, we averaged 16.5% annual growth in housing starts from 2012 through 2015 to get there, along with the associated sawmill capital investments and employment. In the Shock scenarios contemplated here, we slow down and step back, as witnessed in mill curtailments and cap ex reductions, to regain our footing.

Observations and Lessons

Clear scenarios and simple frameworks add value to the extent that they prove useful, which relies in part on having access to information. Trusted data helps us to use our experience and

[5] *Forisk Research Quarterly* (*FRQ*); overview: https://forisk.com/product/forisk-research-quarterly-frq/

knowledge to screen and rank potential risks and disruptions on businesses and markets. What have we learned, so far, from evaluating potential implication from the coronavirus on the forest industry and other investment activities?

We know what we don't know.
This is a numbers game. And the numbers get worse before they get better. It's simply the math we learned in forestry.[6] **Trees planted years ago give us the forests we have today**. Volumes can strike in massive waves. We call this "a wall of wood" or "the pig in the python".

With the coronavirus, the spreading that occurred silently in January and February gave us the infections we had in March. What tells us we can return to normal? When we have smog alerts or forest fires or car crashes or hurricanes or food poisoning, we have metrics and indicators that signal "all clear!" Why? Because we have data.

Consider our ability to say early and with confidence that "We do not have a toilet paper problem." As forest industry analysts, we knew this because (1) many firms in this industry are Forisk clients and we could confirm that wood continued to flow and mills continued to pulp fiber; (2) the coronavirus does not increase the need of toilet paper, whether or not you contract it; and (3) in the U.S., our TP supply chain has little exposure to imports. **Data matters**.

We don't know what's knowable.
It does not matter if this situation is better or worse than people think, thought or said; it just is. And months into the situation, we don't know what "is" is. You can't yet touch the bottom of the pool if you don't know how deep the water is. **Analysis requires data, and data requires testing**. Each and every failure to deliver, offer, conduct, collect and communicate the results of a test reflects a small crime and failing in this battle.

Anything short of complete, ruthless transparency obscures our ability to know what is knowable, develop plans and support each other.

We know what to do.
In forestry, we have a systematic approach that applies generally to situations requiring clarity for making decisions. We focus attention and energy on three areas.
1) Understand the local situation. Situations vary by market, so focus effort appropriately.
2) Question the data. As in forestry, everything here is a sample. Cite trustworthy sources.
3) Know what's knowable. Make calls and follow the simple practices that we know work well.

Conclusion

The coronavirus consumes economic growth through delayed production and consumption. To the extent it slows people it slows the economy. Our scenarios reflect this idea that the coronavirus hit a massive "pause" button on the U.S. economy. The question is, "for how long?"

Forestry teaches us much that is relevant to thinking through the coronavirus. Collect data. Understand sample sizes and growth patterns. Develop management plans based on frameworks and scenarios. Communicate. With a clear sense of where we are and how things work, it's easier to organize our teams and get moving.

[6] "Counting Trees: Notes on Modeling Forest Supplies in the U.S. South", August 28, 2017, available at: https://forisk.com/blog/2017/08/28/counting-trees-notes-modeling-accumulation-forest-supplies-u-s-south/

Appendix A: About Forisk

Our team conducts research to understand how things in the forest industry work. We use this to help clients make better decisions with timber-related investments and wood-using industries. All Forisk researchers have direct forest industry and market analysis experience. This includes work in wood procurement, forest finance, forest operations, and timber market forecasting.

Forisk publishes the *Forisk Research Quarterly* (*FRQ*), which includes timber forecasts, forest industry analysis, forest operations research and wood market rankings for North America. In total, Forisk subscribers own or manage over 100 million acres of timberland and use over 200 million tons of wood per year in the U.S. and Canada. This includes firms and organizations based in the U.S., Canada, Europe, Asia and South America.

Our consulting focuses on analyzing the supply and demand characteristics of local wood and timber markets and, from this analysis, developing forecasts and strategic guidance related to investment decisions and the management of assets. To support this research, Forisk maintains the most complete databases of mill level capacity for solid wood-using mills in North America.

Forisk Product and Services

- Products
  - *Forisk Research Quarterly* (*FRQ*)
  - *Forisk Wood Fiber Review (FWFR)*
  - North American Forest Market & Industry Rankings
  - North American Forest Industry Capacity Database
  - North American Timberland Owners & Managers database
  - Forest management benchmarking for the US South and Pacific Northwest
  - Wood Bioenergy US database
- Services
  - Timber market and wood basket screening, ranking and feasibility analysis
  - Property and mill-specific timber price forecasts
    - Stumpage and delivered
  - Forest operations analysis and benchmarking
    - Wood procurement, market infrastructure and logging/hauling capacity
  - Executive education and professional development
- 2020 Events
  - "Applied Forest Finance" short course
  - "Timber Market Analysis" short course
  - **4th Annual "Wood Flows & Cash Flows" Conference**
    - **Save the date: December 8th, 2020 in Atlanta**
- Previous Forisk Strategy Notes
  - *2019 Q3: Technology in the Forest Industry: Observations from Pulp and Paper*
  - *2019 Q2: Substitution in the Forest Industry: Lessons from Plywood and OSB*
  - *2019 Q1: Risk and Context in the Forest Industry: Lessons from Wood Pellets and Bioenergy*
  - *2018 Q4: Reinvention and Competition in the Forest Industry: Lessons from Wood Pallets*
  - *2018 Q3: Thinking Beyond Deviations: Changes that Could Disrupt the Forest Industry*
  - Available at https://forisk.com/resources/white-papers-and-articles/

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