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## You Know Your Forecast Will Be Wrong. So Why Bother?

### *Economic Forecasts Are “Wrong”*

Economic forecasts are always wrong (Box 1).

#### **Box 1. Accuracy of Economic Forecasts**

Q: Why did God create economists?

A: In order to make weather forecasters look good.

Janet Yellen, Fed Chair, May 22, 2015

"I am describing the outlook that I see as most likely, **but based on many years of making economic projections, I can assure you that any specific projection I write down will turn out to be wrong, perhaps markedly so.**"

<http://www.businessinsider.com/janet-yellen-economic-outlook-projection-2015-5>

Most forecasters can come pretty close on next year's forecast. Things begin to fall apart after that, and the further out the forecast year, the more it is likely to be off.

Many years ago, part of my job was to help in a semi-annual forecast exercise where we would forecast timber prices out 15 years. After a few of these exercises, I checked to see how often we were correct in forecasting what would happen in the next year. I found we were correct in the *direction* of our forecast 60 percent of the time. In other words, when we thought prices would increase or decrease in the next year, they actually did move in the expected direction 60 percent of the time. We were also unbiased when we were wrong. About 20 percent of the time we expected prices to go up but they actually went down and 20 percent of the time when we expected prices to go down but they actually went up (This means we were not perennial optimists who always over-estimated future timber prices.)

### *Why Are Forecasts Wrong?*

There is always something that happens that you did not (and could not) anticipate.

#### **Political Changes**

##### Elections

- In US presidential elections, you may be pretty accurate at estimating what will happen to the economy if the Democratic candidate wins vs. if the Republican candidate wins. But you can't be absolutely certain who will win until the election happens.

#### **Economic Shocks**

Economic shocks are—by definition—unexpected. You can't have a price spike if “The Market” thinks things are priced correctly

- Financial collapse in 2008
  - If you were looking ahead in early 2008, did you forecast the Great Recession and its impact on your business?
- Spotted Owl
  - The fact that timber prices spiked so much indicates that “The Market” was not prepared for (/did not expect) timber harvesting to be halted on western US National Forests in the early 1990s.
- US Oil Production
  - Recent sharp increases in US oil production (largely due to new exploration and extraction technology including fracking) seem to have taken most of the oil-producing world by surprise as the surge in volume has come very close to filling all available storage tanks and caused a significant drop in oil prices.

### ***So Why Forecast?***

So your forecast will be wrong. If you are good, your next year's forecast will only be little bit wrong. Your forecast for the year after that will be a little more wrong. Your forecast for 10 years from now? Ha!

So why bother?

### ***The Process***

The process of forecasting is valuable in itself. The process helps you better understand your business and what drives it. In order to know how your sales will grow (or not) next year, you need to understand those factors that will increase or decrease demand for what you are selling.

When you sell your timber, where does it go? Who is the final consumer?

If you are growing hardwoods in Pennsylvania or New York, it may not make any difference to you how many golf clubs are sold next year. But it may be useful to know how many baseball bats will be sold and how many of them will be ash or maple or aluminum. How many kitchen cabinets might IKEA expect to produce in China, and where will the hardwoods used to make those cabinets come from?

Or perhaps you are growing radiata pine in New Zealand. New Zealand has become the largest supplier of softwood logs to China and prices paid for your logs had been increasing nicely for a couple of years. But China's economic growth slowed a little last year and logs started piling up in the ports.

What is going to happen to the prices for your trees this year and next? A strengthening of the Chinese economy would help keep radiata pine prices strong. Much of the strength in the Chinese economy in 2009 and 2010 came from a massive government-funded infrastructure program and a massive program to build housing units for all the

people moving from rural interior regions to the fast-growing coastal cities. (Those cities that needed those people to manufacture all that furniture and flooring and those smart phones and televisions being shipped to the US and Europe.

What will China do now to boost economic growth? How many more high-speed railways does China need now? How many more housing units are needed? What is the current vacancy rate on all the units built over the last five years?

If the Chinese economy is not going to consume as much of your radiata pine as it used to, will someone else want that wood?

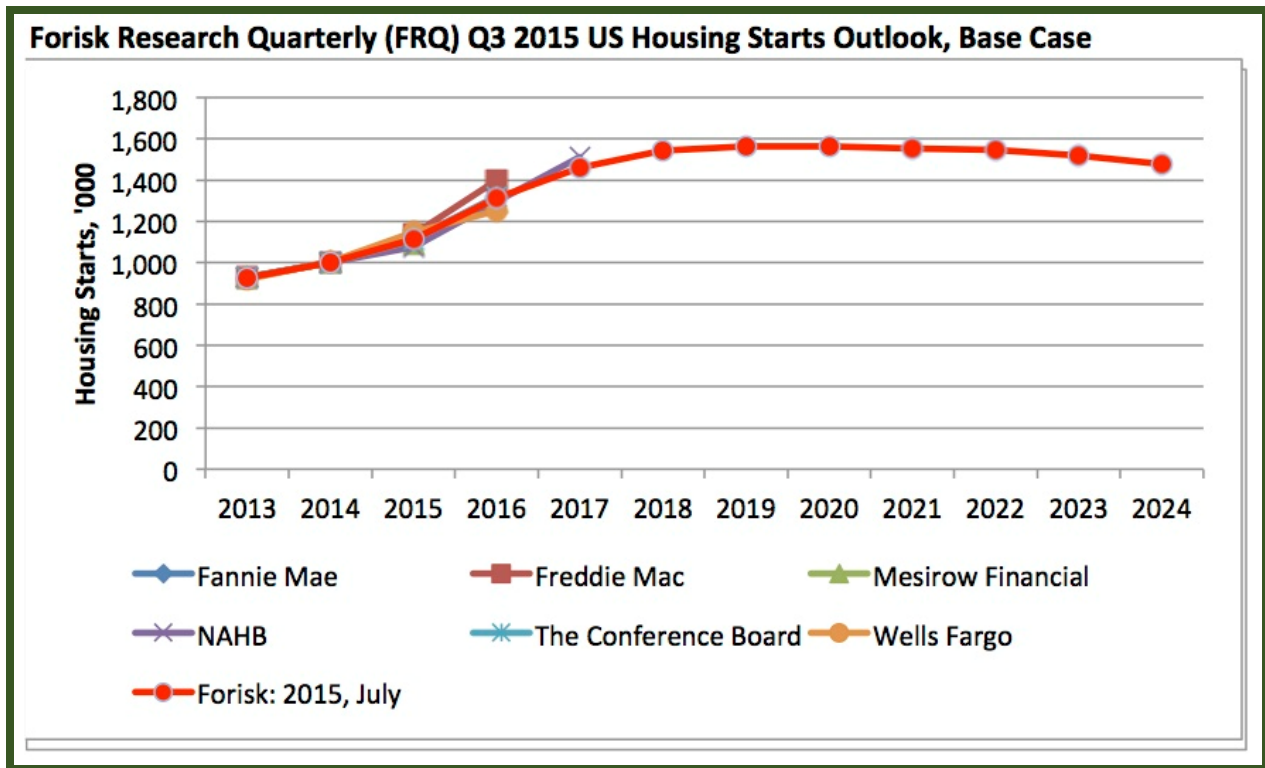
Before the great housing starts crash in 2007, the US used a lot of radiata pine lumber in moulding and millwork (doors and windows) in its housing. If US housing starts improve, will that make up for any decrease in demand from China?

If demand from the US increases, your logs are likely to go to domestic (New Zealand) sawmills which will turn those logs into lumber to be shipped to the US. Will those sawmills pay as much for your logs as did the exporters who shipped those logs to China?

Or, suppose you are growing southern pines. Should you try to sell your mature timber this year, or wait until next year? Southern pine sawtimber prices are a little higher than they were a couple of years ago, but will they be higher next year? Should you wait to harvest? (If you own a few hundred thousand acres of southern pine, the question might be: should you harvest a lot of timber this year, or harvest a little this year and a lot more next year?)

Why would southern pine sawtimber prices be higher next year? Well, if housing start rise, more lumber is needed to build those houses, which means the demand for sawlogs will increase, which means the price paid for sawtimber *might* increase.

Figure 1. Housing Starts Forecast from Forisk



Source: Forisk Consulting

If housing starts *don't* increase, is there any chance of sawtimber prices increasing? There has been a little bit of activity in shipping southern pine logs to China. Given the slowdown in the Chinese economy, is that likely to continue? Will the Chinese shift to buying cheaper logs from the US South instead of those high-priced radiata pine logs from New Zealand? Or will the freight cost eat up the savings?

**The Difficulty is in the Details**

In the examples given above, US housing starts can be an important factor for radiata pine from New Zealand and southern pine from the US South. So, if you know what housing starts are going to do, you can get a pretty good idea of what the demand for southern pine sawtimber will be and you can get some idea of whether or not demand for radiata pine lumber in the US will offset some of the decreased demand for logs in China.

There are lots of organizations that forecast housing starts. The National Association of Home Builders updates its forecast almost every month.<sup>1</sup> Forisk Consulting posts a chart of its most recent quarterly forecast on its blog.<sup>2</sup> The chart from its latest post is shown in Figure 1. It includes forecasts from other sources for comparison.

You can use someone else's forecast of housing starts to figure out what lumber production will look like in 2016 or 2017 and what that will mean for sawtimber demand and prices.

But what is behind the housing start forecast? What will make the actual housing starts in 2016 be different from the current forecast?

- Interest rates
  - Low interest rates will (probably) encourage home buyers. Interest rates that are lower

<sup>1</sup> See: <http://www.nahb.org/en/research/housing-economics/economic-and-housing-forecasts.aspx>

<sup>2</sup> See: <http://www.forisk.com/blog/>

than forecast could result in higher housing starts than forecast.

- What will the Fed do? The Federal Reserve Bank has been threatening to raise interest rates for many months now. Some people say raising interest rates will derail the fragile economic recovery (and housing starts).
- Employment
  - More good jobs than forecast will encourage more home buying.
  - You (usually) need a (high-enough-paying) job to get a mortgage to buy a house. How much of the dropping US unemployment rate is due to more jobs being created and how much is due to a decrease in the labor force (because people have stopped looking for work)?
- Household formation
  - Will household formation increase at the forecasted rate?
  - Are young people getting good enough jobs that they can afford to move out of their parents' houses? And are they carrying too much debt from college loans to be able to put a down payment on a house?
- House values
  - Where are house prices going?
  - Have home prices recovered to the point where people can afford to sell their old houses and buy a new, bigger better one?

Each one of these factors has an effect on housing starts. But each one of them needs its own forecast. And each of the variables used to forecast *those* variables will need its own forecast...etc.

### Summary

Any forecast will be wrong as soon as it is completed (Box 1). The further out the forecast, the less accurate it is going to be.

But, the forecasting process is still valuable. It will help you understand what drives key components of your business (e.g., growing and selling trees).

As you work on understanding those key drivers, you will end up with a list of variables—macroeconomic, forest products supply and demand, etc.—to watch. As those variables change over time they will provide indications of how the economy is actually performing compared to your forecast.

### *We've Moved (Again)*

After enduring several years of the intense heat of southern New England (Boston) summers, we have returned to the more moderate climate of Central Maine. We are now temporarily located on the shores of Lake Wassookeag in Dexter, about an hour west of Bangor.

During the process of moving, we discovered (with the help of two cable companies and a cell phone service provider) that due to federal regulations, we could not move/port our old phone number to our new location (or to our cell phone), so it was abruptly disconnected. You can still reach us on our cell phone (207-717-5858).

We hope to find a permanent location in the next few weeks and we may be able to provide our new contact information in the Q3 *Forest Research Note*.

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