

Margin volatility in wood-based panel production – how resilient is this industry towards an economic downturn?

Dr. Sauter, Philipp¹⁾; Goecke, Frank¹⁾

1) AFRY Management Consulting, Lutzstr. 2 80687 Munich, Germany
philipp.sauter@poyry.com / Mobile: +49 152 0930 5663

Abstract

Situation

Raw material costs and price levels in the wood-based panel industry are amongst the key parameter for healthy margins. The recent strong decreases in OSB price levels in the USA made that evident. Numerous OSB plants needed to mothball or even shut down their production plants in 2019. Specialized OSB companies move from >20% EBIT ratios in 2018 to negative EBIT in 2019.

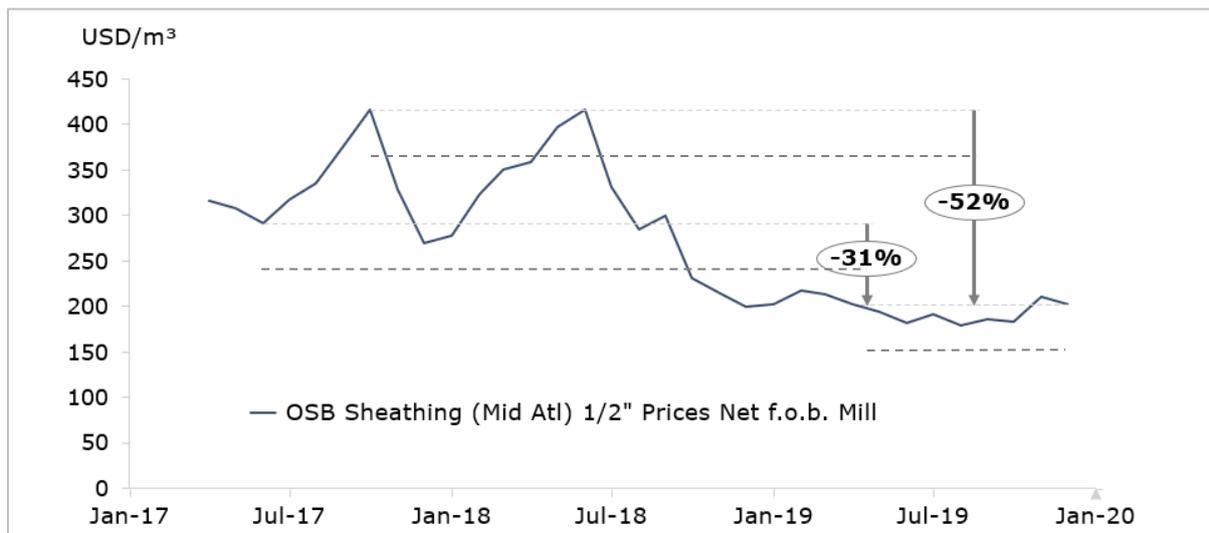


Figure 1: OSB (1/2") price development in West USA, USD/m³ nominal f.o.b. at mill site (Source: Random Length)

Problem

This development causes also irritation in the wood-based panel sector in Europe. The construction sector is still booming, but the furniture sector shows partly negative signals. The decline in surfacing material consumption as well as partially decreasing panel production figures point towards a cooling down phase after years of strong market development and investment activities. Companies ask themselves if we are heading towards the next economic crisis.

Key question

This leads to the key questions, how volatile are prices and in turn margins and how can margin slippage risks be mitigated? In other words; how resilient is the wood-based panel industry in economic downturn situations?

Approach for the analysis

In order to answer these questions, we compare the price development and its volatility across panel types and across regions, specifically between USA and Germany. These two markets can be regarded as representative for the two large panel markets North America and Central Europe.

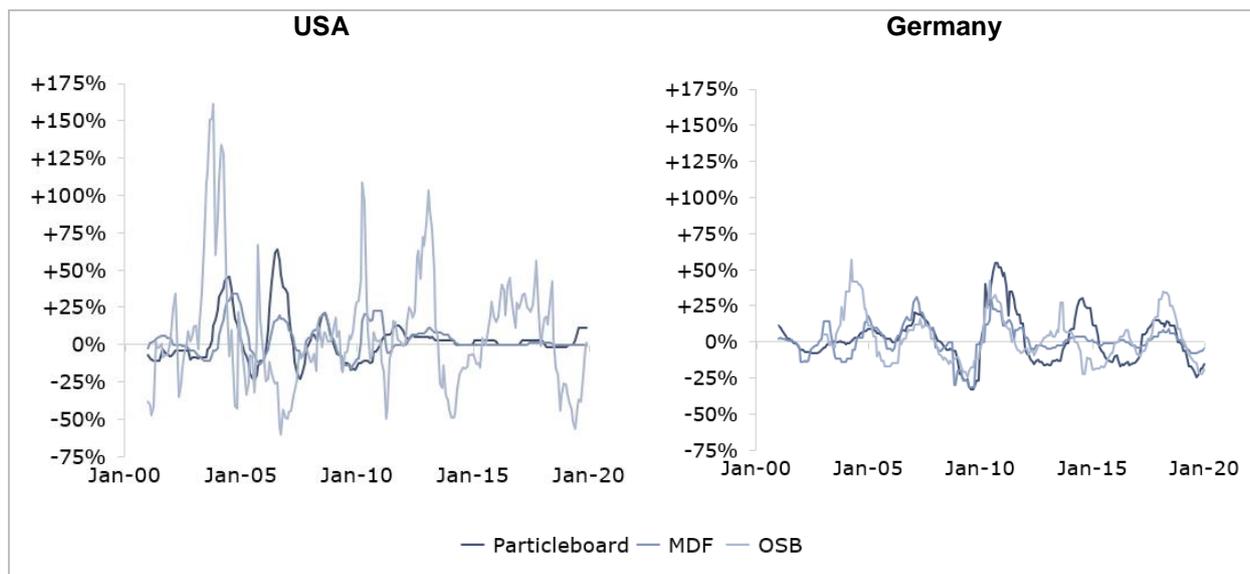


Figure 2: Year-on-Year price changes (nominal) in the USA and in Germany (Source: Random Length, Destatis, EUWID)

As an example, OSB reveals higher volatility than particleboard and MDF (cf. Figure 2). This is partly reasoned by the stronger focus of OSB towards the more weather-dependent construction sector, while particleboard and MDF are predominantly consumed in the furniture sector. Despite, the construction sector is currently performing fairly strong and reasons for this development are furthermore seen in changing distribution channels in the US as well as the recent strong investment activities. Hence, this study does not focus on the general demand and supply situation but also analysis the supply chain.

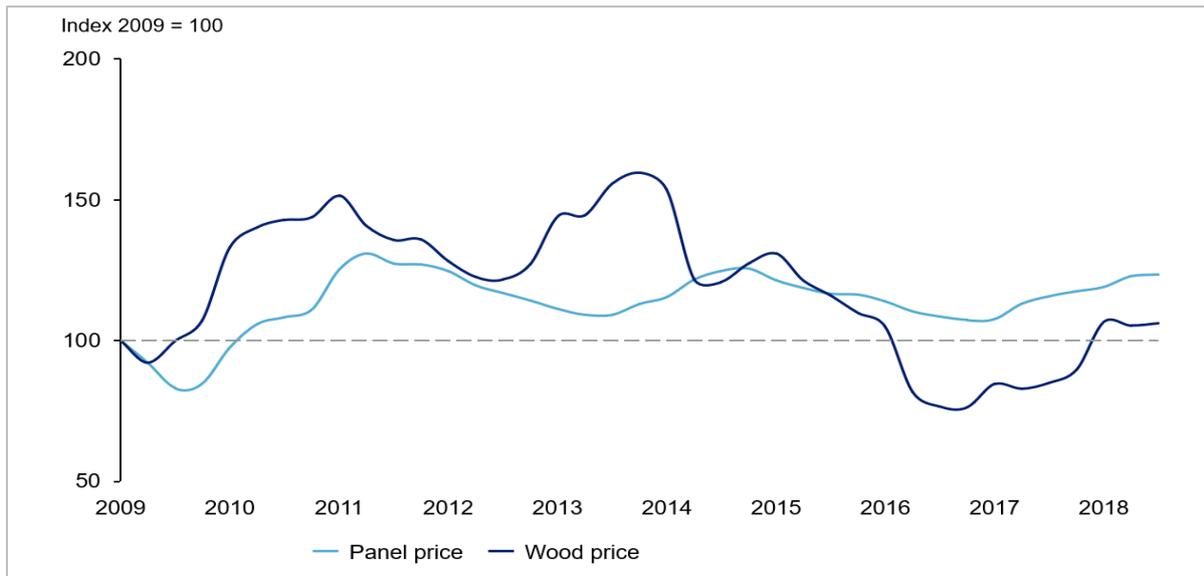


Figure 3: Price index of industrial round wood and particleboard in Germany (Source: AFRY, EUWID)

More constant panel prices are not necessarily an advantage, since margin slippage can also be caused by production cost variations. If prices are not coupled to input costs (cf. Figure 3), there is no natural hedge effect. This implies that the panel producer has to bear the full market risk. In order to mitigate the risk and to reach a higher level of resilience, we see three main factors:

- Speed of reaction, e.g. passing on product price declines to suppliers
- Backward- and forward integration of sourcing and production steps
- Diversification regarding geographies and products

Scope of the presentation

In this presentation we will analyse the price and margin volatility by panel type and draw conclusions on how companies can mitigate margin slippage risk. In detail we will cover the following aspects:

- Illustration of the panel prices (particleboard, MDF, OSB) development and volatility in the US vs. Germany
- Assessment of the average margin development in the panel production
- Conclusions on the underlying causes for price volatility
- Conclusions on the resilience of the wood-based panel industry
- Demonstration on how forward and backward integration can affect the company resilience to potential price and margin down-turns