Opportunities for American Hardwood Lumber in Poland

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(Summer 2018)

Introduction

Poland has a population of 38 million people and an area of 120.7 thousand square miles, slightly smaller than Mexico. More than 30% of the country is forested with a mix of 75% softwood (Spruce, Fir, Pine and other) and 25% hardwoods (Beech, Oak - *Quercus petraea*, Hornbean, Birch, Adler and others). It has been estimated that the amount of timber harvested from Poland's forests was over 45 million m^3 in 2017.

Poland is a country with a large wood products industry. According to several sources, there are over 7,000 primary wood products industries and over 25,000 secondary industries in the country. Companies employing less than 25 workers are considered small and between 25 to 250 are considered midsize. The largest furniture producer in Poland is IKEA that employs over 7,000 workers. As these statistics suggest, the furniture industry is critical for the wealth and economic development of the country.

Methods

The data presented in this project was collected through case study research and from secondary sources. Visits to Polish industry and industry associations were organized during May 2018. Six wood products industries (4 furniture companies and 1 sawmill) and 2 industry associations were visited in around cities of Krakow, Warsaw and Poznan. A set of questions were asked to the case study firm leaders following by the tour of their production facilities. Table 1 shows the main characteristics of the case study firms.

Table 1. Main demographic aspects of case study firms visited in Poland

Type of Company	**Demographics**	**Products and Production**	**Export Markets**	**Species & material used**
Solid furniture	90 employees, 25 years in business, one production facility in South Poland	Household furniture, bedroom, and kitchen cabinets	90% production to Germany and Switzerland	White oak and Beech
Solid and composite furniture	230 workers, 65 years in business (created in 1950), three production plants in Poland	Dining tables, wardrobes, benches, upholstered and non-upholstered chairs. 25% is made of solid wood.	80% of production goes to Germany and 20% to the local market	White oak, Beech, MDF, particleboard

Sofa and chair frames	700 workers, 38 years in business, 2 production plants	70% of production is frames for sofas and chairs, 30% upholstered chairs	90% of upholstered chairs is exported to Germany	85% of solid wood used is Beech (3,000 m^3/month)
Solid wood furniture	250 employees, 49 years (started in 1959), 2 production plants	Dining sets, bedroom furniture, and kitchen cabinets	70% is exported to Germany (90%), USA, Norway, and England	80% White Oak and 20% Beech
Sawmill	80 workers, funded before WWII	Kiln-dried lumber, furniture components, and wood pellets	50% of production goes to China (90%) and Germany	Beech logs (3,400 m^3/month)

Hardwood Roundwood Supply Chain Issues

Figure 1. Unloading Beech logs in a furniture producer in South Poland

The state forest controls 95% of the supply of roundwood in Poland. Quotas for purchasing and harvesting stumpage are established on a yearly basis and different criteria are followed to determine the amount of quota assigned to the requesting companies. The regulations and guidelines to access the roundwood market are contained in a document that is over 600 pages and it has been reported to be difficult to understand even by the Polish wood products industry. The perception from industry is that the government is holding stumpage inventory to increase forest coverage to 33% (currently at 30%). For example, total harvesting of White Oak sawlogs from 2013 to 2017 in thousands m^3 was 542, 547, 546, 539, and 535 respectively. Out of this White Oak sawlog production, 10.4 thousand m^3 is exported to Austria (29%), Slovakia (29%), Germany (18%) and others. A total of 83.1 thousand m^3 of White Oak sawn lumber gets exported to mainly Lithuania (37%), Germany (15%) and Great Britain (8%). (PECWI 2018).

About 80% of the solid wood used by the solid furniture industry in Poland is White Oak. Beech is also used but mostly for lower quality furniture components such as sofa and chair frames.

The control on the roundwood supply creates demand and supply issues. During 2018, the companies participating in this study reported having difficulties finding White Oak from local sources. Therefore, most of these companies were purchasing White Oak roundwood and lumber from neighboring countries such as Ukraine and Slovakia. According to PECWI (2018), Poland imported more than 171 thousand m^3 in White Oak sawnlogs (Slovakia 70%) and lumber (Ukraine 59%) in 2017. Currently companies are paying in average of $200 per cubic meter for low quality logs of beech (grades C-D) and about $590-706 per cubic meter for high quality logs of White Oak (grade B or higher).

Other raw materials commonly used in the furniture industry are MDF and particleboard. No issues were reported in regard to the supply chain for composite products used in the furniture industry.

A key characteristic of the companies that were visited was vertical integration. In all cases, the furniture producers had their own sawmill and kiln-dry operation. In one case, the company owned their fleet trucks for distribution of products.

Labor Issues

Primary and secondary wood products industries in Poland are facing a critical labor shortage. It seems experience and skilled workers are moving to the west looking for much higher paying jobs. To replace them, a good proportion of Polish companies are bringing workers mostly from Ukraine.

Markets and Consumer Preferences

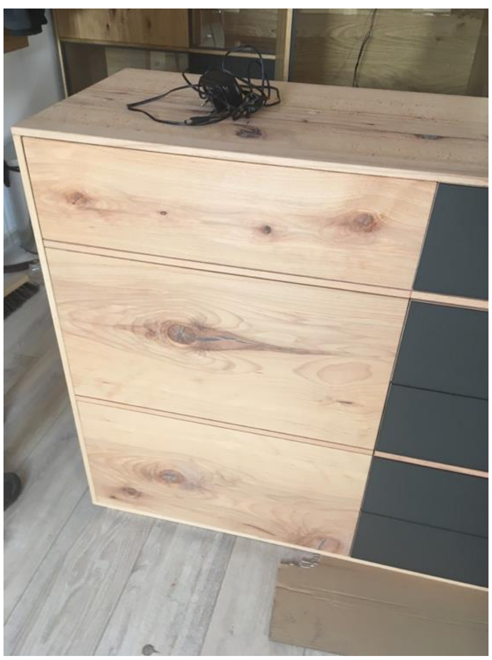

Figure 2. Sample of solid wood furniture using low grade White oak

Out of the 5 wood products industries that were visited, only one produced the majority of its product for the local market (sofa and chair frames). The other four companies exported at least 50% of their production. Three out of these four produced high-end solid wood furniture for the Western European market (Germany, England, Switzerland) and the fourth company produced Beech kiln-dried lumber for the Chinese market (around 30 containers per month).

The market for solid wood furniture is primarily demanding character marked or rustic White Oak wood. Low lumber grades (splits and knots) are preferred by customers in local and export markets. A few customers also demand Beech lumber of higher quality. Customers also seem to like a combination of metal, glass and wood on modern or contemporary designs.

Opportunity for US Hardwoods in Poland

Polish furniture companies are aggressively looking for alternative sources of low-grade White Oak lumber for their local and export markets as current issues with the supply are pushing prices up (77% increase since 2010). American producers of White Oak have a great opportunity of offering low grade (1Common and 2Common) White Oak. In average, a midsize furniture company (100 employees), consumes around 300 cubic meters (128,700 bf) of solid lumber per month.

About four years ago a survey sent to over 1,000 Polish furniture industries by a consulting firm found out that only 3 Polish companies were using American hardwoods as raw material. This previous finding was also confirmed by most of the Polish companies that were visited. For example, Polish furniture companies do not know Yellow Poplar at all. One company that produces frames for sofas and rocking chairs uses high-quality Beech lumber for the construction of the frames because it is perceived as a very strong material. This company consumes around 3,000 cubic meters of Beech. Yellow poplar could compete very well in this type of application. In one company, the perception was that the US was able to supply only products from Read Oak. This company had a high demand for White Oak and was investing into research for production of aggregated components, where the core was produced from lower quality lumber and outer layers were produced from high quality white oak.

In contrast, Polish furniture industries know American Walnut very well, but price for this species is usually too high as well as difficult to find. The reported consumption of American Walnut as a raw material is less than 5% of total solid wood consumption.

American Red Oak is not accepted in Poland as a raw material for solid furniture production because the distinctive appearance compared to White Oak. However, one industry association believes that Red Oak could be used as raw material for solid flooring production. In Poland, having oak solid flooring is perceived as a great symbol of status.

Other species that are used in solid furniture production, but in a smaller percentage (less than 1%), are Ash, Cherry, Birch or Adler.

Acknowledgements

State funds for this project were matched with Federal funds under the Federal-State Marketing Improvement Program of the Agricultural Marketing Service, U.S. Department of Agriculture.