

At the Chair of **Logistics and Supply Chain Management** of TUM School of Management we are looking for an interested and qualified student to conduct his/her

## **Bachelor thesis**

on the topic:

### **Literature Review on Steel Pricing Mechanisms and Quantification of Qualitative Forecasts**

Steel prices are characterized by high volatilities and sudden price increases/drops. The purpose of the literature research study is to first provide a well-founded and scientifically validated description of the current state of research about the determination of steel prices. The focus should be on concepts, modeling, and implementations applying macroeconomic approaches. The aim is to give a comprehensible overview on literature and the extraction of underlying drives, correlated price drivers, and modeling approaches explaining the pricing mechanism for steel.

Apart from quantitative models, forecasting the evolution of prices can be based on the qualitative predictions of experts and macroeconomic aggregates (e.g., market sentiments). However, these qualitative data cannot directly be used for computation. Quantification techniques are popular methods in empirical research for aggregating the qualitative predictions at the micro-level into a single figure. Therefore, the second part of the thesis is to provide an overview about these methods, analyze their out-of-sample predictive quality, and exemplarily apply a method on a qualitative indicator for steel.

#### **Selected research tasks:**

- Literature Review on steel pricing mechanisms (quantitative and qualitative, e.g., experts, market moods etc.) and the quantification of qualitative forecasts
- Identification of key drivers and both qualitative and quantitative price predictors/indicators
- Exemplary application of a quantification method for qualitative forecast data for steel

#### **Requirements:**

Qualified candidates can work independently and command analytical skills. First experiences with quantitative methods are recommended. The thesis should be written in English, supervision is possible in German and English.

**Begin:** as soon as possible

**Advisor:** Moritz Rettinger

**Application:** Email with curriculum vitae and transcript of records to [logtheses.log@mgt.tum.de](mailto:logtheses.log@mgt.tum.de)