

# Identifying the German Inventory Cycle

## A Multivariate Structural Time Series Approach Using Survey Data

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Inventory cycle, unobserved components models, survey data.

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### Summary

Inventory fluctuations play an important role in the formation of business cycles. In Germany, little research has been dedicated to this topic recently. In this study, a structural time series model in the tradition of Harvey (1989) is employed to decompose German inventory investment into trend, cyclical and seasonal components. The empirical findings are compared with the results of theoretical inventory models. The estimations suggest that the German inventory cycle consists of three sub-cycles with periods of one, three and eight years. The three-year cycle of inventory investment corresponds to the well known "Kitchin" cycle and has a significant impact on GDP fluctuations. Adding the inventory assessment variable from the IFO business survey to the model improves the results. It turns out that the inventory assessment variable has properties of a leading indicator. These findings may be useful to improve macroeconomic forecasting.

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