

# Grain price convergence in the Russian Empire in the late 19th century<sup>\*</sup>

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## Abstract

In this paper we study regional market integration with the focus on the regional agricultural markets of the Russian Empire. Our study is based on grain prices collected from primary historical sources of the late 19th century. We have geo-coded annual price data of different levels of aggregation, as well as provinces (*gubernia*) and districts (*uezd*) of the European Russia.

First, we find that price data of the late 19th century displayed sufficient spatial interdependence, see Figure 1. In order to estimate spatial autocorrelation indices, we construct different spatial weights. We show that there was significant positive annual spatial autocorrelation of grain prices on the different level of regional aggregation. We find that annual spatial autocorrelation indices were increasing over time. We provide results which are robust to the choice of spatial weights.

Second, we refer to the simple law of one price (LOP) as an outcome of the regional market integration. We test the LOP using panel unit root tests for price data of different grain types. Also, we find a significant positive impact of neighbors on grain price convergence.

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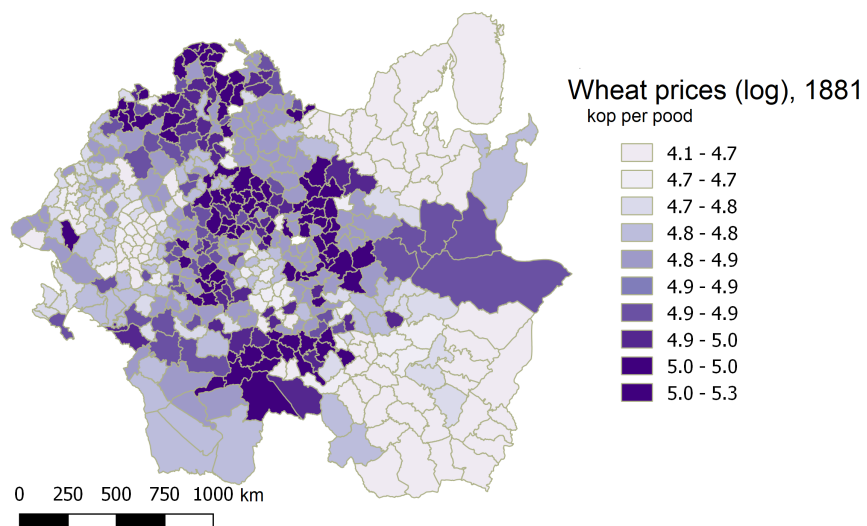


Figure 1: Wheat prices in 500 districts of the European Russia, 1881