

Market integration and price transmission: Assignment

You may prepare this assignment alone or with one or two partners (maximum group size is three!). If you wish to take the exam in this course, you must submit an assignment no later than midnight (24:00) of the day before the exam is written. The date for the exam will be set and made public soon. Please submit your assignment by email to scramon@gwdg.de. This assignment will contribute one-third (33%) of your final grade in this course, and the written exam will contribute the remaining two-thirds (67%).

1. Collect two time series of price data for a country and agricultural product of your choice. For example: a domestic price and a corresponding international prices (spatial market integration); or a raw product price and a related processed product price (vertical market integration). Sources that may help you are the FAO GIEWS dataset (domestic prices) and the World Bank's GEM dataset (international prices), as well as national statistical services. You will need a series with at least 100 observations (for example, monthly data from 2000 to today).
2. Briefly describe the setting and the importance of the product that you have chosen for the country that you are studying. What is the national supply balance for this product (production, trade, use); what is its share in national agricultural production, national food consumption; what national policies are in place (e.g. import tariffs, export restrictions, other measures) that affect domestic price formation in the case of spatial market integration? What market structures (concentration?) and technical processes affect price determination in the case of vertical market integration?
3. Test your price series for stationarity using the ADF-test, and test for cointegration using the Engle-Granger and Johansen tests. Estimate a simple vector error correction model of transmission between your price series. Interpret the key results (long-run elasticity of price transmission, adjustment parameters). Are the two prices cointegrated? In the case of vertical price transmission, test for asymmetric price transmission as well.
4. Discuss the results of your empirical analysis in question 3 in light of the characteristics of the market that you presented in your response to question 2. Do your results provide any evidence that government policy or market structure are influencing the price transmission relationship that you have estimated, and if so, how?

Please prepare a brief report (roughly 4-5 pages) that presents your price data graphically as well as your responses to questions 2, 3 and 4. Make sure to include all test and estimation results.