Scenarios and prospects for the Swiss wine market
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This paper provides a better understanding of prospects for the Swiss wine market, through modeling and forecasting analysis. Results show a strong heterogeneity for impulse responses functions (IRF) as well as supply-demand ratios in explaining forecasting error terms among different wine specifications such as region of origin, color and grape varietal. Panel vector autoregressive model (Panel VAR) and forecasting estimation allow for longitudinal analysis as well as cross-section data for specific types of wines. Sign restrictions strategy enables us to disentangle demand and supply shocks effect on two main variables: quantity and price equilibrium. Finally, this study provides an important tool for understanding price change persistence for both producers and consumers.

The methodology used is the Panel VAR approach in order to forecast and give prospectives for wine consumption in Switzerland, disentangling supply and demand shocks through sign restrictions strategy. Impulses responses functions (IRF) allow us to study in detail the persistence of a price variation due to an exogenous shock and its respective return to an equilibrium. Forecasting methods based on technical analysis, factor of influence and mainly the forecasting error term, complete the methodology.

The results shows price persistence variation for selected types of wines. This is a major finding that could help producers or supermarkets to be more precise when using price promotions in order to trigger more sales. This operation can actually give a bad price signal image to the customers by making it difficult to convince them that a further rise in price is justified. High response heterogeneity across individuals to supply or demand shocks demonstrate that these two phenomena should be treated in a separate way, allowing for different adapted answers. Coming to the forecasting analysis, we noticed that it is more difficult to make projections with aggregate panel data than a forecasting estimation individual by individual. The latter statement could seem to be trivial but it shows that longitudinal data are not always a panacea and cannot resolve all economic and econometric issues.

This contribution extends previous analysis in VAR approaches by dealing with forecasting and taking into account several economic, climatic and agricultural factors. Disentangling supply and demand shocks with sign restriction in wine economics is also quite innovative, and this method allows us to go beyond current knowledge on wine price persistence. This research paper can help producers in taking a decision whether to decrease their prices with the aim of producing a positive reaction from Swiss consumers.

Keywords: Wine economics; Panel VAR; IRF; Sign restrictions; Forecasting.

JEL-Codes: L66; C33; C53.