Institut für Arbeitsmarktund Berufsforschung

Die Forschungseinrichtung der Bundesagentur für Arbeit



## IAB-DiskAB

Einladung 8/2010

## Forecasting Regional Labour Markets with Global VAR Models and Indicators

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The development of employment and unemployment in regional labour markets is known to be spatially interdependent. Global Vector-Autoregressive (GVAR) models account for the link between the local and the surrounding labour markets and thus might be useful when analysing and forecasting employment and unemployment. Furthermore, GVARs have the advantage of allowing for both strong cross-sectional dependence on "leader regions" and weak cross-sectional, spatial dependence.

For the recent and further development of labour markets, the economic situation (described e.g. by business-cycle indicators), politics and environmental impacts (e.g. climate) may be relevant. Information on these factors can be integrated in addition to the joint development of employment and unemployment and the spatial link. Then, the forecasting accuracy is demonstrated for German regional labour-market data in simulated forecasts at different horizons and for several periods.

The results show that, surprisingly, business-cycle indicators seem to have no information regarding labour-market prediction, climate indicators little. In contrast, including information

about simultaneous labour-market policies and vacancies as well as accounting for lagged and contemporaneous spatial dependence can improve the forecasts relative to a simple bivariate model.

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<u>13.30 Uhr</u>

Sitzungssaal <u>126a</u>