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Abstract

Business tendency surveys are a commonly accepted instrument for the assessment of the current business cycle course. Most of these surveys rely on qualitative questions about the current situation of the firms and about their expectations for the coming months. This paper analyzes whether qualitative questions about employment expectations are useful to assessing actual employment changes. In Germany the Ifo Institute specialises in business surveys. The German Ifo data are investigated using three different approaches: smoothing techniques are used to help in dating turning points in the course of the series; error correction models are used to analyze the general lead/lag relationships and Probit models are used to estimate a threshold for the survey-based indicator which helps to differentiate between an increase and a decrease in employment. All three methods indicate that the employment expectations are a leading indicator of actual employment changes.

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Keywords: Business tendency surveys; Employment; Employment expectations; Turning points; Granger-causality; Error correction models

1. Introduction

For the analysis of the economic course, timely indicators of relevant business cycle variables are needed. One way to obtain early signals about the business cycle course is to use business surveys. In Germany, the Ifo Institute has specialized in business surveys. About 7000 firms are asked monthly about their assessment of the current business situation and about their expectations for the next three or six months. Questions about

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total order quantity, price expectations and inventory investment are asked, among other things. This article examines the results of a question about employment expectations for the next three months. Three possible answers are provided: the number of employed persons will (a) increase, (b) remain approximately the same, or (c) decrease. The weighted balances from the answers "increase" and "decrease" are calculated and used as an indicator for actual employment. For a comprehensive description of the Ifo surveys see Goldrian (2004). There are a number of studies that look at whether survey results are useful for forecasting. Some more recent studies on the German Ifo surveys include Langmantel (1999), Fritsche and Stephan (2002) and Mittnik and Zadrozny (2005). However, none of this multitude of

[☆] Ifo Employment Expectation and the Assessment of Employment in Germany.

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studies analyzed the results of a question about employment expectations.

This article uses the balances of the survey results from the Ifo Institute and examines whether the course of the actual employment can be analyzed with these data. The statistical offices try to assess the actual monthly number of employed persons with elaborate procedures. These numbers are used here as reference data. This article examines whether the survey data yield a timely, and perhaps leading, indicator.

Currently, companies from four sectors — manufacturing, construction, wholesaling and retailing are surveyed by Ifo monthly. The survey results for the four sectors are weighted together to produce an employment expectation index of trade and industry. Services is indeed a very important sector, and the Ifo Institute is working on a service panel, but the data are still preliminary and hence are not included in this examination of the employment expectations. Nevertheless, employment in all sectors is used as a reference time series. It is intended to use the surveybased index to get signals about the future course of employment changes. It is not the aim of this study to forecast the absolute number of employed persons.

A general question arises as to whether observing employment changes in the four considered sectors is sufficient only for the assessment of overall employment changes. Unfortunately, comparable data for the four sectors, which could be summarized and compared with the overall figure, are not available. Sectoral data that could be easily summarized are only available for the number of employees subject to social insurance contributions. These data are published by the Bundesagentur für Arbeit (Fed. Employment Agency) and contain only a fraction of the employed persons. Nevertheless, similarities of the figures for the considered sectors and overall employment might be an indication of the suitability of the present study. That is, although the number of employees subject to social insurance contributions is not directly comparable with the overall number of employed persons considered in this article, these data can be used to get a rough impression of whether there are fundamental differences between the overall employment growth and the employment growth in the four sectors considered. Fig. 1 shows the year-by-year growth of employed persons along with the growth of the number of employees subject to social insurance contributions in the four sectors. The similar location of turning points in these series confirms that the approach intended in this article appears feasible.

The statistical instruments used for the evaluation of the business tendency survey-based indicator consist of nonparametric regression methods, error correction models and Probit models. However, before these methods can be used, the data have to be prepared. This is done in the next section. The above-mentioned methods are applied in the follow-

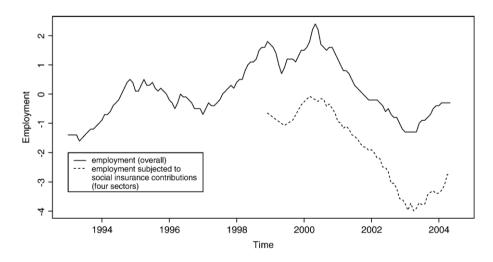


Fig. 1. Overall year-by-year employment growth and the growth of employment subject to social insurance contributions for four sectors only (time frequency of the latter: quarterly from December 1998 to May 1999, monthly from June 1999 to May 2004).

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