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and 62 Tables

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Foreword

A pilot flying to a distant city needs to check his position, flight path and weather conditions, and must constantly keep his plane under control to land safely. The Ifo survey data provide advance information on changing economic weather conditions and help keep the economy under control. To be sure, by their very nature they only provide short-term information. But like a plane, the economy will not be able to reach its long-term goals if it strays off course in the short term.

The Ifo survey data provide the most comprehensive and accurate, up-to-date database in Europe on the state of the business cycle, and the Ifo climate indicator, sometimes simply called “The Ifo”, is the most frequently cited indicator of its kind in Europe. Both the European stock market and the euro react to our indicator. Ifo’s methodology for determining the business climate indicator has been exported to more than fifty countries, most recently to Turkey and China. The Ifo people were proud to have been asked to help set up polling systems in these countries. It is said that the Chinese government relies more on their “Ifo indicator” than on their official accounting statistics.

The seven thousand firms that Ifo surveys every month not only give information about the state of their business and their expectations but answer questions on other business issues as well. The answers have been fed into a unique panel database, reaching back for decades, that contains treasures for empirical research on the business cycle. Ifo encourages researchers from all over the world to use these data for their research. For any serious research project, Ifo provides in-house facilities that give external researchers a maximum of support in analyzing the data while simultaneously protecting the anonymity of the participating firms.

This book contains examples of scholarly econometric research that is based on the Ifo data set. It contains seven fine articles on various research topics that center around business cycle problems and make use of the survey data. I very much hope that these articles will whet the appetite of econometricians around the world in applying the data for their purposes. More information on the data set can be found on our web site www.ifo.de as well

as in a new handbook on the Ifo surveys that is available from the institute on request.

I am grateful to the authors of this volume for contributing to this fruitful project.

Munich,
June 2004

Hans-Werner Sinn
President of the Ifo Institute for Economic Research

Preface and Overview

The Ifo Institute – short for “Information und Forschung”, information and research – was founded in 1949 and is internationally renowned for its business surveys. Every month close to 7,000 enterprises are questioned on their short-term planning and their appraisals of the actual and future business situation. The confidence indicator frequently referred to as the Ifo Business Climate Index is derived from the responses to this Ifo Business Survey. While the Index attracts a lot of attention by practitioners (especially financial market analysts), the use and empirical exploitation of this and other components of Ifo business surveys is – amongst academics – still relatively scarce.

The present volume is a collection of papers presented at a conference entitled “The Academic Use of Ifo Survey Data” which took place at the Ifo Institute on December 5 and 6, 2003. It aims to promote the use of Ifo survey data by the scientific community by giving examples of timely research questions which can be addressed by qualitative survey data like the monthly Ifo Business Survey. As will be shown, this type of real-time data can be very informative when it comes to e.g. forecasting real economic activity or exploring monetary policy transmission.

The book is organized as follows. After a brief review of the survey activity of the Ifo Institute given by Gernot Nerb, the head of Ifo’s Business Survey department, the volume centres on two topics: (I) the analysis of business cycles; and (II) the analysis of monetary policy.

The first part – dealing with business cycle analysis – is made up of five papers. Stefan Mittnik and Peter A. Zadrozny’s paper illustrates and evaluates a Kalman-filtering method for forecasting German real GDP at monthly intervals. GDP data is usually published at quarterly intervals but analysts and decision makers often want monthly GDP forecasts. Quarterly GDP could be regressed on monthly indicators, which would pick up monthly feedbacks from the indicators to GDP, but would not pick up implicit monthly feedbacks from GDP onto itself or the indicators. An efficient forecasting model which aims to incorporate all significant correlations in monthly-quarterly data should, however, include all significant monthly feedbacks. Mittnik and

Zadrozny do this with VAR(2) models of quarterly GDP and up to three monthly indicator variables which are estimated using a Kalman-filtering-based maximum-likelihood estimation method. The monthly indicators are industrial production and current and expected business conditions as measured by the Ifo Institute's business surveys. The main result is that the mixed-frequency method produces monthly GDP forecasts for the first two months of a quarter ahead which are more accurate than one-quarter-ahead GDP forecasts based on the purely-quarterly data.

The paper by Ulrich Woitek investigates the cyclicity between real wages and the business cycle in Germany and the US. Using a threshold vector autoregressive model to condition the relationship between real wages and business cycle fluctuations on the phase of the cycle, he demonstrates that the former behaves differently during an upswing as compared to a downswing. If there is an asymmetry in the relationship between real wages and the business cycle, significant correlations might cancel out if calculated without conditioning on the phase of the cycle. In the case of the US, both manufacturing output and employment are analyzed as cycle measures. In the case of Germany, the business cycle is additionally measured by the Ifo Business Climate Index. In general, the evidence for countercyclical wages appear to be stronger in Germany than for the US.

Thomas A. Knetsch addresses the data revision problems for German inventory investment, an important variable in business cycle analysis. As commonly known, the preliminary data published in the German national accounts is rather unreliable. By applying standard techniques of time series analysis, he shows that there is considerable co-movement of the reference series and three Ifo series taken from the Ifo Business Survey which document manufacturers', retail and wholesale traders' assessments of stockholdings. Knetsch constructs composite indices of inventory fluctuations by means of co-dependent cycle analysis (i.e. a method based on canonical correlations) and static factor modelling. Using recursive estimates, the different variants are assessed with respect to the stability of the weighting schemes and their ability to produce reliable forecasts of the "real" inventory fluctuations. Knetsch finds clear evidence that these composite indices outperform the preliminary official releases of the national accounting statistics.

The paper by Jan Jacobs and Jan-Egbert Sturm also deals with the ability of Ifo survey indicators to explain data revisions. Like the data on inventory investment, the official index of German industrial production is also prone to several revisions following its first release in the official bulletin of the statistical agency. Using two indicators taken from the Ifo Business Survey, one on the current business situation, and the other on the development of industrial production compared to the previous month, Jacobs and Sturm set-up a model of the revision process of industrial production. Their model exploits the property that Ifo indicators are not revised in subsequent months. They conclude that the two Ifo indicators play a significant role in explaining data revisions, but counterintuitively the Ifo business situation indicator outper-

forms the Ifo production indicator.

The final paper in Part I of this volume by Henk Kranendonk, Jan Bonenkamp and Johan Verbruggen describes the methodology and presents the empirical results of the leading indicator approach used by the CPB Netherlands Bureau for Economic Policy Analysis to prepare short-term forecasts for the Dutch economy. The system of the CPB leading indicator is composed of ten separate composite indicators, seven for expenditure categories ("demand") and three for the main production sectors ("supply"). Special attention is paid to the role and significance of indicators from the Ifo Business Survey. Especially the business expectations of German manufacturers for the next six months play a prominent role in the CPB long-leading indicator. The authors conclude that their approach performs quite well in describing the cyclical nature of GDP; turning points are predicted adequately, and the different indicators produce a sensible story underlying the business cycle.

The theme of Part II is the analysis of monetary policy. The first of three papers in this Part is written by Michael Ehrmann and is concerned with the transmission of monetary policy impulses. According to both, the balance sheet channel and the bank lending channel small firms are more likely to be affected by a monetary tightening than large firms because of credit market imperfections. For his empirical analysis Michael Ehrmann uses Ifo Business Survey data on the current business conditions and the development of the demand situation of more than 3,000 firms belonging to the West German manufacturing industry. By sorting this data into five size classes, ranging from firms with 1 to 49 employees to firms with more than 1,000 employees, the paper finds support for the hypotheses formulated in capital market imperfection theories. The business conditions of small firms are more sensitive to monetary policy shocks than those of large firms, also when accounting for demand differences. In addition, these effects are reinforced in business cycle downturns.

The paper by Elmer Sterken analyzes the role of forward-looking indicators for describing German monetary policy. He focuses his analysis on the information content of the Ifo Business Climate Index and of housing and equity prices. While the Ifo Business Climate Index serves as a real-time indicator of the output gap, asset price changes are assumed to reflect changes in expectations of all future economic variables. Sterken shows that the use of both the Ifo Business Climate Index and asset prices improves the performance and interpretation of a vector autoregression model of German monetary transmission. On the one hand, the Bundesbank responded more intensively to changes in the Ifo Business Climate Index than to changes in GDP. On the other hand, housing prices help to give a more accurate description of the recent history of German monetary policy, whereas equity price shocks turned out to be rather irrelevant.

The final paper by Sandra Waller and Jakob de Haan investigates the views of private sector economists on the credibility, transparency and independence of seven major central banks. In contrast to the other papers

presented in this volume, Waller and de Haan formulated a one-time set of special questions within the framework of the Ifo's quarterly World Economic Survey to which more than 200 economists from all over the world respond. In line with a survey conducted by Alan Blinder among central bankers, they asked participants in the Ifo World Economic Survey to answer questions on the importance and determinants of credibility. The results of both surveys are very comparable. Credibility is considered to be important to attain price stability at low cost, while the best ways to earn credibility are a history of honesty and a high level of central bank independence. According to the respondents of the Ifo World Economic Survey, the Federal Reserve is the most credible, transparent and independent central bank. The ECB is not perceived as highly credible or transparent, even though the respondents consider it to be very independent.

Konstanz, Munich,
June 2004

Jan-Egbert Sturm
Timo Wollmershäuser

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