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USE OF SURVEY DATA FOR
INDUSTRY, RESEARCH AND
ECONOMIC POLICY

*Selected papers presented at the
24th CIRET conference, Wellington,
New Zealand, 1999*

Edited by
Karl Heinrich Oppenländer
Günter Poser
Bernd Schips

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Wellington, New Zealand, 1999

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Preface

The Centre for International Research on Economic Tendency Surveys (CIRET) held its 24th conference and a workshop on capacity utilisation at the invitation of the New Zealand Institute of Economic Research (NZIER) in Wellington from March 16 to March 20, 1999.

For this volume thirty-one workshop and conference papers were selected and grouped into seven parts: Leading Indicators and Turning Points; Classification of Business Cycles; Survey Data and Policy Decisions; Attitudes and Behaviour of Firms; Capacity Utilisation; Stocks and the Business Cycle; and Survey Data and Economic Forecasts.

As in previous conferences, prominent speakers of the host country addressed the conference participants in plenary sessions. The editors wish to thank Len Cook (New Zealand Government Statistician) for his opening address on 'Challenges in Measuring Small Economies', and Sir Roger Douglas (Previously Minister of Finance), Arthur Grimes (Institute of Policy Studies, Victoria University of Wellington), Graham Scott (Previously Secretary to the Treasury) and John Yeabsley (NZIER) for their comments to the topic 'Deregulation and the New Zealand Economy', Rt Hon Bill Birch (Treasurer) and Alan Bollard (Secretary to the Treasury) for informing the plenum about the government's view of the economic and fiscal development in New Zealand as well as Donald T. Brash, Governor of the Reserve Bank of New Zealand for his dinner speech on New Zealand's monetary policy.

Our special thanks go to the Director of NZIER, Alex Sundakov, to Liz Hodgson and Corina Basher of the NZIER secretariate and to the Business Manager of NZIER, Alan Froggatt, who did a wonderful job in organizing conference, workshop and social events.

During the conference the CIRET Coordinating Committee decided to transfer the CIRET Bureau from the Ifo Institute in Munich to the Institute of Business Cycle Research at the ETH Zurich.

The editors wish to thank all persons who were engaged in the preparation of the 24th CIRET conference, especially the staff of NZIER as well as Sandra Waller and Christine Beckhäuser of the Ifo Institute.

They also thank Petra Freitag and Heiko Lenhard, Darmstadt University of Technology, for their efforts in formatting the papers for publication.

Karl Heinrich Oppenländer, Günter Poser, Bernd Schips
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Introduction

The objective of CIRET conferences is the utilisation and promotion of research in the field of business cycle analysis and economic forecasts using predominantly qualitative data. A world-wide network of institutes has been established for this purpose, which combines theoretical, econometric and empirical knowledge in an ideal fashion.

This volume contains 31 lectures presented and discussed at the 24th CIRET conference in Wellington (New Zealand), which have been divided into seven chapters. The topics of each of the chapters reflect current fields of interesting research.

Part I deals with the question of turning points in a business cycle and their predictability. It has been shown again and again that turning point analyses and forecasts are difficult tasks to master. A solution is probably most likely to be found by using leading indicators based on qualitative data collected within companies in connection with new econometric methods.

Part II deals with the issue of business cycle classification. Assistance for business cycle forecasts will also be given in this connection. Provided that the business cycle exists (which is assumed), defining 'Where are we located in the business cycle' would be helpful for forecasts. It would then be possible to roughly estimate how long the upturn or downturn will continue (compared to 'reference cycles' of the past) or when approximately the top or the bottom of the business cycle is expected to be reached.

Part III presents examples for the use of survey data for political decisions. This chapter serves firstly to show that this type of data leads to increased knowledge by virtue of its up-to-dateness and secondly, to clearly establish that additional information which is not gained from official statistics or other sources is a valuable addition and can assist in making political decisions.

Part IV provides a contribution to the analysis of the entrepreneurial decision-making process. The behaviour shown by each individual company depends to a crucial extent on additional information. The survival or success of a company in competitive surroundings is thus fostered and positions can be more firmly established. In addition, researchers – and incidentally also business enterprises – find analysing and understanding each decision-making process interesting, which, in turn, is

especially successful with survey data which can be used for very specific purposes.

Part V draws attention to an important determinant in the development of the economic process - capacity utilisation. Information on capacity utilisation is rare. Surveys have the great advantage that the entrepreneur, who is answering specific questions on capacity utilisation of his plant knows what he is talking about. He is able to judge not only the future developments of demand with regard to the existing capacity, but is also able to correctly allocate changes on the supply side (shift operation, capacities becoming desolate due to new products etc.). When viewed on an aggregate level it is possible to compile series for potential growth (fully utilised capacities), which, in turn, provide assistance for the prediction of economic growth in the manufacturing sector. Each individual rate of capacity utilisation also is an indication of the performance of the current business cycle.

Part VI deals with a similarly interesting field of research: inventory movements and their influence on the development of business activity. Again, there is serious lack of statistical data so that qualitative data constitute valuable supplementary information. It goes without saying that the quality and accuracy of business forecasts benefit in particular from the availability of survey data on investments in inventories of goods, the course of such inventory investments, their assessment and their predictability by companies.

Part VII rounds off the insight given into the intricacies of carrying out business cycle research. Several examples are given in this chapter on how the prediction of economic phenomena such as inflation, stock market movements, building programmes etc. could be improved by means of qualitative data.

CIRET conferences combine two major aspects which are of decisive importance to scientific progress: they endeavour to win protagonists of new scientific knowledge as speakers and offer a platform for encounters and discussions which are also indispensable for scientific progress. Starting with the Budapest conference in 1991 more and more institutes from East European countries have participated in CIRET conferences. It turned out that during the first phase of transition qualitative data were almost the only information available on the economic process. Therefore, survey activities in transition economies were stimulated tremendously.

The following five papers presented by young authors were selected to give an overview of the variety of contributions to this volume.

Marlene Amstad presented a paper which is to lead to an improved predetermination of business cycle turning points by using Markov switching models with survey data. Data is used which is collected from the quarterly surveys of the industry in Switzerland. An indicator is constructed (H- signal) which is tested on the past. Result: 'The meanlead of the H-signal amounts to four quarters. Covering a period with ten turning points in GNP, four false signals occur.' This is viewed as progress with previous tests based on other methods. The tests to date with leading indicators were often carried out using linear methods, such as correlational analysis and spectral analysis. However, the test with the non-linear Markov switching approach demonstrates that it is wise to analyse various economical situations separately (e.g. boom phases and recession phases) and then to locate the probability of stable regimes.

In the course of his observation of business cycles for classification purposes, *Pierre Beziz* compares univariate methods for measuring business cycles (moving averages, annual growth rates, phase average trend method of the NBER, Hodrick Prescott Filter, Kalman Filter, probability methods for the trend) with multivariate methods (MVA). A 'set of economic indicators' is used as a starting point with the customary combination of quantitative and qualitative data. The initial combination is retained ('a different set of indicators will give different results'). Irregular components are able to be separated from the trend, which is constructed using a large number of indicators. Details of the theory, which is referred to as being 'rather complex', were not given. The method is currently being tested on the Mexican economy and is viewed as being trailblazing for OECD research ('The use of multivariate techniques is still relatively recent.').

Harald Haupt and *Sandra Waller* examine whether inflationary expectations, which are gained from qualitative survey data, can improve short-term forecasts of the inflation rate. The examination is based on data derived from the quarterly survey of experts 'Economic Survey International' carried out by the ifo Institute. Vector-error-correction (VEC) or autoregressive-distributed-lag (ADL) models are used, which consistently give a better performance than autoprojective approaches. It is concluded that 'survey respondents have relevant information about future inflation'. It has also been shown in the case of the existing set of data that co-integration tests provide better results than the classic approaches for checking the rationality of inflationary expectations.

Elena Belyanova and *Serguei Nikolaenko* take up an interesting issue which is decisive for the assessment of prospective growth in transformation countries. How can the existing savings funds of households

encourage investments? The crisis in Russia in August 1998 is used as a setting. The situation before and after the crisis is compared. The analysis is based on a VAR model. The empirical information was gained by means of consumer surveys. It is demonstrated that as real income decreases the propensity to save is shifted from employees to the self-employed. Investment is influenced thereby, although the general situation remains 'very volatile'.

Paolo Carnazza and *Guiseppe Travaglini* examine the investment behaviour of Italian enterprises. The starting point is the establishment of the fact that 'different degrees of irreversibility of capital stock' exist that may influence the investment activity of companies. In order to gain additional information, a special survey is carried out focusing on this fact. Moreover, the real option theory of investment is applied. A second starting point for observations is the uncertainty of investment decisions. It appears that the combination of both factors ('uncertainty-irreversibility combination') constitutes a serious impediment to companies' investment programmes. The authors recommend that politicians be aware of the irreversibility problem.

These papers not only show the wide range of the programme of the 24th CIRET conference, but also demonstrate successful combinations of theoretical reflection and empirical survey research.

Karl Heinrich Oppenländer

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Part I

Leading Indicators and Turning Points