

## European Data Watch

This section will offer descriptions as well as discussions of data sources that may be of interest to social scientists engaged in empirical research or teaching courses that include empirical investigations performed by students. The purpose is to describe the information in the data source, to give examples of questions tackled with the data and to tell how to access the data for research and teaching. We will start with data from German speaking countries that allow international comparative research. While most of the data will be at the micro level (individuals, households, or firms), more aggregate data and meta data (for regions, industries, or nations) will be included, too. Suggestions for data sources to be described in future columns (or comments on past columns) should be sent to: Joachim Wagner, University of Lueneburg, Institute of Economics, Campus 4.210, 21332 Lueneburg, Germany, or e-mailed to (wagner@uni-lueneburg.de).

## Ifo World Economic Survey Micro Data

By Anna Stangl

### 1. Introduction

The Ifo World Economic Survey (WES) is an economic confidence survey conducted now in more than 90 countries by the *Ifo Institute for Economic Research* in Munich, in co-operation with the Paris-based *International Chamber of Commerce* (ICC) and with the financial support of the *European Commission*. The Ifo Institute is internationally renowned for its German Ifo Business Survey (*ifo Konjunkturtest*). With its World Economic Survey the Ifo Institute provides comparable statistics on global economic confidence, not only for the world's main economies but also for a great variety of transition and emerging economies. The WES micro data series are now available to the scientific community for research purposes.

The survey was initiated in the early 1980s. After two trial runs in 1981, the survey has been conducted regularly since 1983. From 1983 to 1988 WES was conducted three times a year and since 1989 quarterly: in January, April, July

and October. By the end of 2006 the WES micro database contained 89 micro data sets overall, from 24 years. As the survey is ongoing, recent micro data continuously join the data set, providing up-to-date information on a broad set of variables.

The main focus of the Ifo World Economic Survey (WES) is to assess worldwide economic trends. For this purpose the Ifo Institute polls at present more than 1,000 economists from international and national organizations worldwide on current economic developments in their respective countries. Unlike the official statistics, which are largely based on quantitative information, WES focuses on qualitative information by asking economists for their assessment of main economic indicators for the present and for the near-term future. This allows for a rapid, up-to-date assessment of the economic situation prevailing around the world, and particularly in developing and transition economies, which often have deficits in their official statistics. The methodological approach of globally asking economists qualitative, opinion-related questions on national economic conditions is unique throughout the world<sup>1</sup>.

Potential users interested in WES can access recent results from the Ifo website:

*<http://www.ifo.de/wes>*

The survey is designed to provide longitudinal data. The most well known outcome of the survey is the *Ifo World Economic Climate* and the *Ifo Economic Climate for the Euro Area*. Both appear regularly in the international economic press. As a rule, both indicators correlate well with the actual business-cycle trends for the world and the euro area respectively – measured in annual growth rates of real GDP (see Figure 1). The WES results are published quarterly in the English publication *CESifo World Economic Survey* and appear in German in the *ifo Schnelldienst*.

Along with variables that build the economic climate index the survey covers a large number of issues, ranging from main macro economic variables (assessment and forecast of the inflation, foreign trade, currencies, interest rates and the stock market) to issues of structural policy (international competitiveness, climate for foreign investors, etc.). The rich information set enables an analysis of economic, financial, political and investment climate across countries and how it has changed over time.

---

<sup>1</sup> In Germany, however, a similar survey is conducted by the Center for European Economic Research (ZEW) – the ZEW Financial Markets Survey. The Ifo WES, in contrast, surveys economists world-wide and Germany is only one of 90 countries that are covered at present. For Germany, the economic confidence indicators from both surveys are comparable. A brief discussion on the comparability of the German economic confidence indicators from the Ifo WES and ZEW survey can be found in *ifo Schnelldienst* 3/2007 (in German).

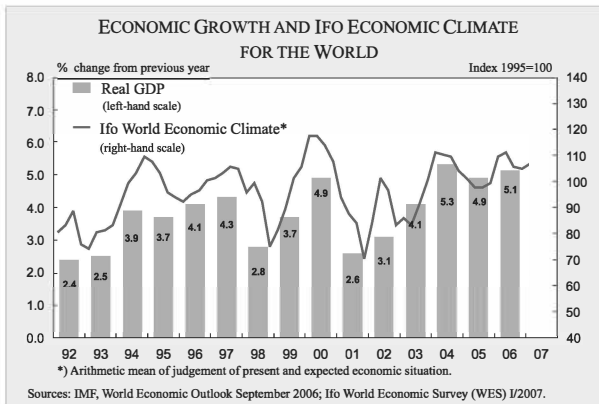
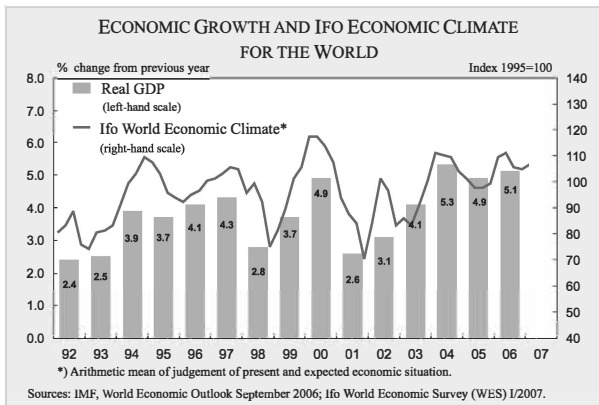


Figure 1: Ifo World Economic Survey (WES) and GDP Growth in the World and the Euro Area

## 2. Survey Methodology

### 2.1 Design of the Survey and Characteristics of the Panel

WES focuses on national economies and in this sense it differs from the other Ifo business surveys that poll companies in Germany only. WES is an expert survey that applies a top-down approach, i.e. the surveyed economists assess the present and future economic situation in their country by taking into account all the aspects they regard as important. The question of representativeness thus does not depend on the number of experts in the surveyed countries but on their qualification and an accurate portrayal of the examined national economies. Within this survey concept, it is essential to involve experts

who are well informed about the economic developments in their countries. Since the inception of the survey, the Ifo Institute has made great efforts to involve such experts on a long-term basis.

The WES panel contains economic experts with a range of specializations in management, finance, and other business functions. About 65 percent of the WES panelists work for international corporations – companies (ca. 45 %), banks (ca. 15 %) and insurance (ca. 5 %). Some work in economic research institutes (ca. 10 %) and chambers of commerce (ca. 10 %), consulates and embassies (ca. 5 %). The remaining 10 % are affiliated with international organizations (OECD, IMF, Asian Development Bank etc.), foundations, media and press or small scale enterprises. Although the panel members are heterogeneous with respect to their professional affiliation, all respondents are highly qualified, being in a leading position or occupied with economic research within their institution.

The participation in the survey is absolutely voluntary. In return for the expertise, the Ifo Institute provides all participating economists with exclusive detailed and timely results of the survey. Thus, pure professional interest in the surveyed topic and the survey results are the sole incentive for the experts' participation in the survey.

As it is common in panel surveys, some economists have left or joined the panel over time, and not all participants respond to every survey, so the composition of the panel varies a little from one survey to the next.

## 2.2 Coverage

The initial micro data set from March 1983 contains 482 observations from 50 countries. The number of surveyed experts and countries continuously expanded over the years. After the political opening of the former Eastern Bloc, more and more Central and Eastern European countries have been integrated into the survey. Starting with the year 2000 the micro data contain responses of more than 600 economists in over 80 countries. From April 2002 the WES panel has been stabilized at about 1,000 economists from more than 90 countries.

## 2.3 Comparability Over Time and Across Countries

Because the survey is international, for reasons of consistency the questionnaire is the same for all countries and is in English. The questionnaire has been used almost unchanged since 1983, except for few questions that were implemented in 1998. However, all changes, also relating the specific phrasing of the questions are well documented. This provides a sound basis for longitudinal analysis. The uniform questionnaire, methodology and data proces-

sing guarantee not only international comparability and aggregation of country results according to various country groups but also comparability over time.

### 3. Questionnaire

The questionnaire consists of eight standard questions, regularly recurring additional questions (at least once a year) as well as one-time questions on current issues in the world economy (special questions formulated by the International Chamber of Commerce – ICC).

The standard questionnaire contains questions on the following aspects:

- Assessment of the general economic situation, assessment of the capital expenditure and private consumption at the time of the survey and compared to the previous six months, as well as economic expectations for the following six months
- Import and export expectations for the following six months
- Assessment of the development of the balance of trade in the next six months
- Information on average inflation for the current year as well as the expectations for the next six months
- Development of interest rates in the next six months, short-term and long-term (since 1998)
- Appraisals of the valuation of the leading world currencies (US dollar, euro – before 2001 German DM – UK pound, Japanese yen) compared to the respective national currency
- Expected development of the US dollar vis-à-vis the national currency (since 1998)
- Development of the local stock market prices in the next six months (since 1998)

The regularly recurring questions deal with the following aspects:

- Assessment of the most important economic problems in the respective country (asked in April and October): Lack of confidence in the government's economic policy, insufficient demand, unemployment, inflation, lack of international competitiveness, trade barriers to exports, lack of skilled labour, public deficits, foreign debts and capital shortage.
- Assessment of the 'climate' for foreign investors (asked in January and July)
- Forecast of real GDP growth for the respective country for the current year (April), as well as for the next three to five years (October)

The exact phrasing of the questions can be seen in the sample questionnaire (Figure 2), which includes the eight standard questions, two of the three regularly recurring questions as well as the special question on a current economic issue (multilateral trade negotiations).

Ifo Institute for Economic Research  
 Poschingerstr. 5, D-81 679 München, Tel: Ms Stangl +49 (0)89 9224-1227  
 Telefax: + 49 (0)89 985369 or + 49 (0)89 9224-1463 or -2227

## World Economic Survey WES

The individual survey results will be treated as absolutely confidential. Please mark the appropriate boxes. No mark means: "Not applicable" or "no judgement". The answer "no change" implies no remarkable change.

**Data requested for**

**Code-Nr.:**

	present judgement			compared to the same time last year			from now on: expected situation by the end of the next 6 months		
	good	satisfactory	bad	better	about the same	worse	better	about the same	worse
<b>1. This country's general situation</b> regarding									
- overall economy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- capital expenditures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- private consumption	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2. Expected foreign trade volume</b> by the end of the next 6 months (in convertible currency)									
exports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
imports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3. Expected trade balance</b> within the next 6 months (in convertible currency)									
(a) increasing surplus or decreasing deficit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) decreasing surplus or increasing deficit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4. Expected inflation rate</b> by the end of the next 6 months (change of consumer prices compared to the same month previous year)									
The rate of inflation on average of 2004 will be _____ % (p.a.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5. Expected interest rates</b> by the end of the next 6 months									
- short term rates (3-month money market rates)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- long-term rates (government bonds with 10 and more years of maturity)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>6. At present, in relation to this country's currency the following currencies (US-\$, Euro, UK £, Yen) are...</b>									
overvalued	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
about at par/parvalue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
undervalued	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>7. The value of the US \$ in relation to this country's currency by the end of the next 6 months will be</b>									
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>8. The level of domestic share prices by the end of the next 6 months will be</b>									
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>9. Please try to assess the importance of the following problems the economy of your country is facing at present</b>									
- Lack of confidence in the government's economic policy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Insufficient demand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Unemployment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Inflation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Lack of international competitiveness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Trade barriers to exports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Lack of skilled labour	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Public deficits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Foreign debts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Capital shortage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Others: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>10. ICC Special Question</b>									
The current round of multilateral trade negotiations, launched in Doha in 2001, is stalled. Leaders of the world's major industrial democracies are meeting in June 2004 at the G8 Summit in the US to discuss world trade and protectionist pressures.									
<b>1. How important is it to your business / the economy of your country that the Doha Round gets back on track?</b>									
very important	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
important	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
not important	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
no answer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2. How satisfied are you with the efforts of the world's political leaders to contain protectionist pressures and to promote a better understanding among electorates of the benefits of an open international trade system?</b>									
fully satisfied	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
satisfied	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
dissatisfied	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
no answer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>11. Expected growth of real Gross Domestic Product (GDP) this year in %</b> _____									

**Please return the questionnaire by April 14, 2004**

Figure 2: Sample WES questionnaire

Since 2002 the experts have the opportunity to respond to the survey via Internet or e-mail. The share of experts who prefer the electronic survey mode is growing. At present about 40 percent of the questionnaires are collected

electronically. The micro data contain a specific variable that identifies the survey mode.

#### 4. Topics of Analysis

Although the WES indicators are regularly published in the press and used by renowned international institutions, such as the OECD and the European Commission<sup>2</sup>, the micro data sets are largely unexplored, lending themselves to various types of analyses:

- Cross-sectional analyses involve an examination of the regional differences with respect to specific economic indicators, such as interest rates, inflation, growth in GDP, assessments of the current economic situation and economic expectations.
- Longitudinal analysis of economic trends involves the development of specific economic indicators over the course of time. The WES database also contains extensive time series for the individual countries as well as for the regional aggregates and country groups, dating back up to 20 years in some cases.

A series of recent studies that used WES data dealt with inflation expectations. Haupt and Waller (2004) have analyzed how WES inflation forecasts can be applied. Henzel and Wollmershäuser (2005) used WES inflation forecasts for developing an alternative to the Carlson-Parkin method for the quantification of qualitative inflation expectations. Their subsequent study used the direct WES measures of inflation expectations to test the evidence on the fit of the hybrid New Keynesian Phillips curve for selected euro area countries, the US and the UK. A byproduct of the study was a test of the rational expectations hypothesis. Several on-going research projects use economic confidence data to improve the quantitative GDP forecasts for the world main economies.

#### 5. Data Access

##### 5.1 Micro Data

Lately a major effort has been made by the Ifo Institute to provide a user friendly micro data base and a good documentation for research purposes. The WES micro data can be accessed through the *Ifo Datapool*. The complete

---

<sup>2</sup> Brunet and Nilsson (2005) from the Organization for Economic Co-operation and Development (OECD) compared the Ifo world and euro area economic climate indicators derived from WES with different world and euro area confidence indicators. Selected WES results are regularly released by the European Commission in the monthly *Business and Consumer Survey Results* website: [http://europa.eu.int/comm/economy\\_finance/indicators/businessandconsumersurveys\\_en.htm](http://europa.eu.int/comm/economy_finance/indicators/businessandconsumersurveys_en.htm).

micro data set is available to the scientific community, with the restriction that research be performed in the Ifo Institute.

The Ifo Institute strictly holds to its confidentiality policy and is committed to guaranteeing the secrecy of obtained survey data. Neither the name of the expert nor of the participant's institution is displayed in the micro data. Third parties have principally no access to the Ifo micro data. The Ifo Institute also ensures that with the inspection, analysis and publication of research results based on micro data no commercial interests are pursued.

The interested researcher has to submit a brief request in written form to the Ifo Institute. Thereupon the Ifo Institute sends an information set on the micro data. The set contains documentation on the survey, a sample questionnaire and a manipulated test data set in STATA format. Upon request the sample micro data set can be provided in another format (Excel, Matlab, SPSS), so that researchers may become familiar with the data structure, variables and data quality, as well as prepare program files (in STATA do-files) for data analysis.

The interested user must submit a formal application to the direction of Ifo Institute, containing a clearly specified research topic, data requirements and proposed time-schedule of the research project. Given approval of the research project, the user must sign a secrecy obligation. Approval may depend on the availability of working places at the Ifo Institute for the suggested time-period.

The data analysis must be performed at the Ifo Institute. The Ifo Institute provides the contractor with working place, specifically arranged for this purpose. The PC containing the micro data sets and analysis software has no access to the Internet. Furthermore, the data cannot be saved on an external medium (disc, CD or USB stick) or be printed.

The outcome of the statistical analysis is examined by an Ifo official, who ensures that the files were used for clearly specified research purposes and adhere to the confidentiality policy. Given approval, the statistical results are sent to the contractor. Detection of secrecy violation leads to deletion of the part that caused the breach of secrecy. After the completion of the research project the contractor is again obliged to send the Ifo Institute the outcome for approval before the results are published. The Ifo Institute examines the study to determine on whether it contains a reference to the use of Ifo micro data and maintains the confidentiality policy.

Data access at the Ifo Institute is exempt from charges. Board and lodging expenses have to be borne by the visiting researcher.

The data set may be of particular interest to graduate students and young researchers who may combine their analysis with an internship at the Ifo Institute. All candidates have to undergo the formal application procedure as described above.



## 5.2 Time-Series

For the majority of variables and countries, as well as country groups (EU, euro area, main economic regions) time-series are already available and not need to be calculated from the micro data in the Ifo Institute. The time-series can be accessed at the Ifo Institute directly upon a request per e-mail or through the major data provider. Given a clearly specified research topic, researchers from academia may acquire the WES time-series free of charge. Updates of the time series can be acquired for a fee.

## 5.3 Further Micro Data

Along with the WES micro data the *Ifo Datapool* contains micro data sets of Ifo business surveys, also for research purposes exclusively. The micro data now being stored in the *ifo Datapool* are: the Ifo Business Survey (*ifo Konjunkturtest*), the Ifo Investment Survey and the Ifo Innovation Survey.

The Ifo Institute encourages researchers interested in using WES micro data. For further information, please contact:

Ifo Institute for Economic Research  
WES / Anna Stangl  
Poschingerstr. 5  
81679 München  
Tel.: +49 89 9224 1227  
stangl@ifo.de

## References

- Brunet, O./Nilsson, R. (2005): Calculation of Normalised Business and Consumer Confidence Indicators and Zone Aggregates. Paper presented at the Joint European Commission – OECD Workshop on International Development of Business and Consumer Tendency Surveys, Brussels 14–15 November 2005.
- Haupt, H./Waller, S. (2004): Informationsgehalt von WES-Daten zur Inflationsprognose, in: G. Goldrian (ed.): Handbuch der umfragebasierten Konjunkturforschung, ifo Beiträge zur Wirtschaftsforschung, No. 15, Munich.
- Henzel, S./Wollmershäuser, T. (2005): An alternative to the Carlson-Parkin method for the quantification of qualitative inflation expectations: Evidence from the Ifo World Economic Survey, *Journal of Business Cycle Measurement and Analysis* 2, 321–352.
- Henzel, S./Wollmershäuser, T. (2006): The new Keynesian Phillips curve and the role of expectations: Evidence from the ifo World Economic Survey, CESifo Working Paper, No. 1694.
- Röthlingshöfer, K. Ch. (1989): Konjunkturtest International – Economic Survey International, in: K. H. Oppenländer/G. Poser, G. (eds): Handbuch der Ifo-Umfragen. Munich.

- Stangl, A. (2007):* Der Index für Konjunkturerwartungen des ZEW und des ifo Instituts, WES, sind für Deutschland identisch, Ifo Schnelldienst 3, 55 – 56.
- Stangl, A. (2007):* Ifo World Economic Survey, in: G. Goldrian (ed.): Handbook of survey-based business cycle analysis. Ifo Economic Policy Series, Cheltenham.