Use of Economic Tendency Surveys

International Workshop Beijing

Klaus Abberger

Swiss Economic Institute (KOF) of the ETH Zurich

Outline

1. Measurement of Assessments and Expectations of the Businesses and the Consumers
   - Aims of ETS
   - Qualitative data
   - Customers of ETS results

2. Composite Indicators
   - Motivation
   - Classical Approach (NBER)
   - Factor Analysis

3. Special Graphical Representations

4. Publication Strategy

5. Forecasting

6. Economic Research

Outline

Aims of Economic Tendency Surveys

- **Base for business cycle relevant indicators**

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- **Receive timely signals about general business cycle course**

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- **Change point detection**

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  - **expectations about price changes**

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    - expectations about price changes
    - **plans about employment**

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- Information about assessments of current situation and expectations for the coming months of enterprises, e.g.
  - assessment of stocks
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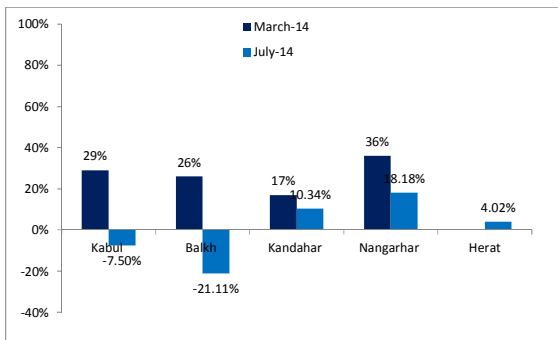 - plans about employment
  - **capacity utilization**

Aims of Economic Tendency Surveys

The information covered by ETS goes beyond topics which are usually captured by conventional quantitative statistics. Examples include

- assessments (e.g. capacities, stocks)
- plans and expectations
- bottlenecks

Business Climate in Afghanistan

Graph 1b- Business Climate by Regions, Oct 2013 and March 2014

Source: Afghanistan Chamber of Commerce and Industries

Quantitative data versus qualitative data

- **easier for respondents**

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- **reduced influence of outliers**

Customers of ETS results

- **Respondents**

Customers of ETS results

- Respondents
- **Enterprises**

Customers of ETS results

- Respondents
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- **Public and Media**

Customers of ETS results

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- **Policymakers**

Customers of ETS results

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- **Researchers**

Customers of ETS results

Two broad categories of users according to their needs:

- **'Executives' (e.g. senior business executives, politicians, senior civil servants responsible for government policy, senior personal in banks and financial institutions and the press and other media)**

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- ■ **'Analysts' (e.g. economists and researchers operating in the academia, research institutions and governmental bodies)**

Financial Times

August 14, 2014 5:04 pm

Russian shadow unsettles German business confidence

By Stefan Wagstyl and Chris Bryant in Berlin

FT .com
FINANCIAL TIMES

Financial Times

August 4, 2014 12:02 am

UK business confidence dips for first time in two years

By Brian Groom, Business and Employment Editor

Any questions? Ask Customer Services

FT.com
FINANCIAL TIMES

Financial Times

Financial Times

Last updated: July 1, 2014 5:07 am

Japan's Tankan business survey falls after consumption tax rise

By Ben McLannahan in Tokyo

FT .com
FINANCIAL TIMES

Any questions?

The Economist

The Economist

The Wall Street Jounal

The Wall Street Jounal

Reuters

Reuters

Economy | Wed Apr 29, 2015 5:12am EDT
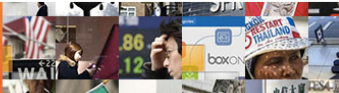
UPDATE 1-UK consumer confidence falls as election nears -YouGov/Cebr

(Adds European Commission consumer confidence survey)

Reuters

Reuters

Markets | Tue Apr 28, 2015 3:11am EDT

French consumer confidence at highest in five years

PARIS

Reuters

Markets | Fri Apr 24, 2015 3:00am EDT   Related: CURRENCIES, MARKETS

Euro rises to two-week high ahead of German IFO survey

LONDON, APRIL 24

Users of ETS

Users of economic tendency surveys

Executives

Analysts

Users of ETS

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Executives

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Outline

Composite Indicators

Economic Tendency Survey data results are a popular ingredient of composite indicators.

The advantage of composite indicators over the individual component series are:

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- fewer false alarms and fewer missed turning points than its individual components

- more stable lead-times

- capacity to react to various sources of economic fluctuations

- **resilient to perturbations affecting only one of the components**

Composite Indicators

■ **Soft/general questions vs. hard specific questions**

Composite Indicators

- Soft/general questions vs. hard specific questions
- **Selection of indicators**

Composite Indicators

- Soft/general questions vs. hard specific questions
- Selection of indicators
- **Aggregation of indicators**

Soft questions: Business Climate

Ifo Business Climate

Ifo Business Survey
Industry and Trade,[1] September 2014

KOF Business Situation

Source: KOF
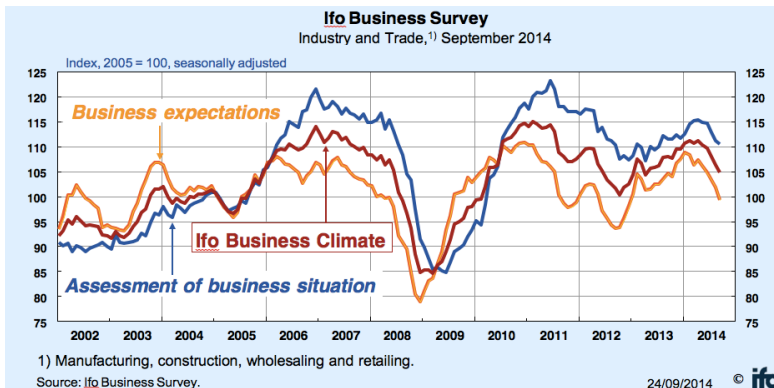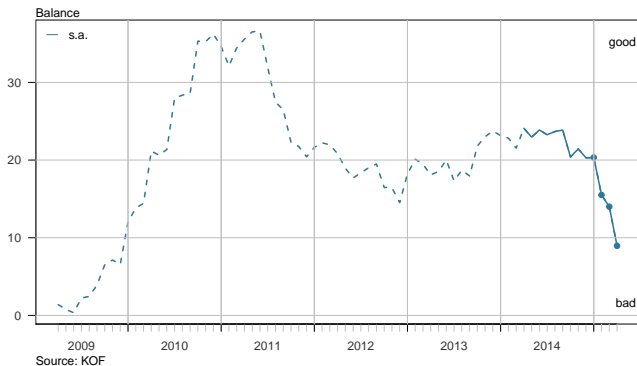
KOF Business Situation Radar
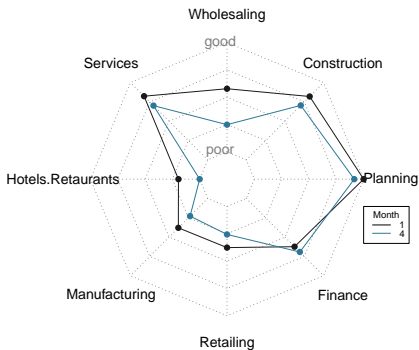
KOF Employment Plans

Source: KOF
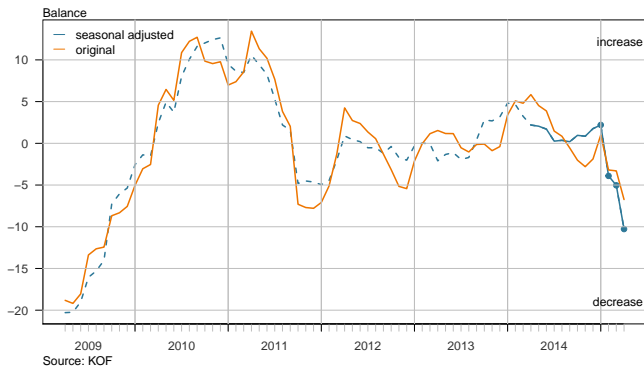
KOF Employment Indicator

Source: KOF
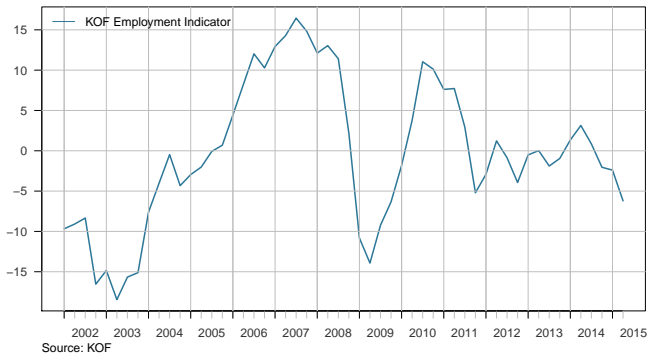
DG EFCIN Capacity utilisation in %
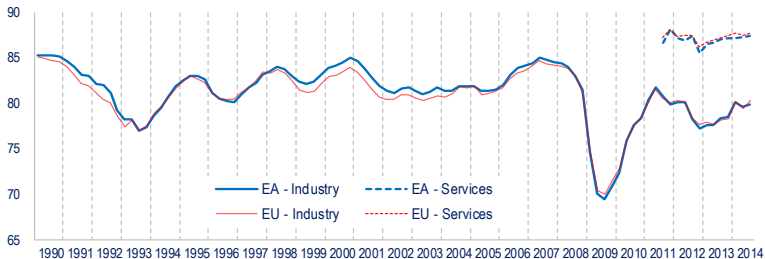
Source: DG ECFIN

Hard questions: European Union

Industrial Confidence

- Assessment of order books
- Assessment of current stock of finished goods
- Production expectations

Hard questions: European Union

Service Confidence

- Development of business situation

- Development of demand

- Expected demand

Hard questions: European Union

Retail Trade Confidence

- Development of business activity

- Assessment of stock of goods

- Expected business activity

Hard questions: European Union

Construction Confidence

- Assessment of order books
- Employment plans

Hard questions: European Union

Consumer Confidence

- Expected financial position of household
- Expected general economic situation
- Expected number of people unemployed
- Household intention to save

DG EFCIN Economic Sentiment

BUSINESS AND CONSUMER SURVEY RESULTS

Graph 1: **Economic sentiment indicator (s.a.)**

long-term average (1990-2013) = 100

— Euro Area (EA)
— European Union (EU)
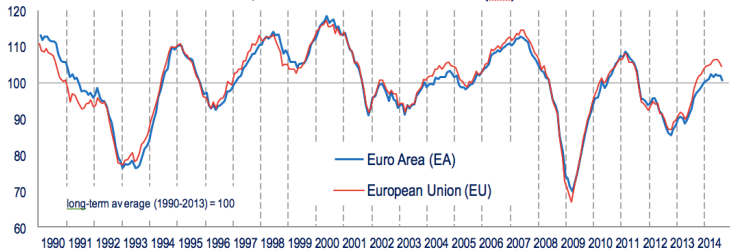
source: European Commission services

Approaches

Question:

How can we condense information contained in various indicators into one (or at least in a view) indicator(s)?

- Classical (NBER)
- Factor analysis

Classical Approach

Steps in Classical Approach

- Choose and classify indicators (de-trending, cross-correlations, turning points, co-spectral analysis)

- Standardize indicators

- Average indicators (and standardize)

Factor Analysis

Factor Models

- a common force drives the dynamics of all variables

- common force, also known as common factor, is typically of low dimension and is not directly observed because every macroeconomic variable embodies some idiosyncratic noise or short term movements

- factor models clean every variable from these idiosyncratic movements and estimate the common component in every series

Outline

KOF

Ifo Business Cycle Clock

Ifo Business Cycle Clock

Ifo Business Cycle Clock

Ifo Business-Cycle Clock Germany
Manufacturing Industry[1)]

Assessment of Current Business Situation vs. Business Expectations

1) Incl. food and beverages. Balances, seasonally adjusted. Data starting in January 2007.
Source: Ifo Business Survey.

24/09/2014   © ifo
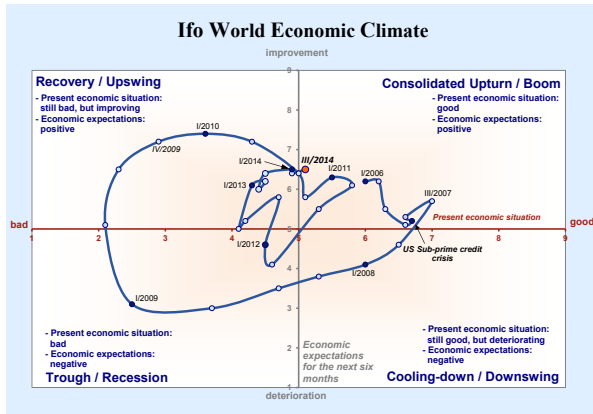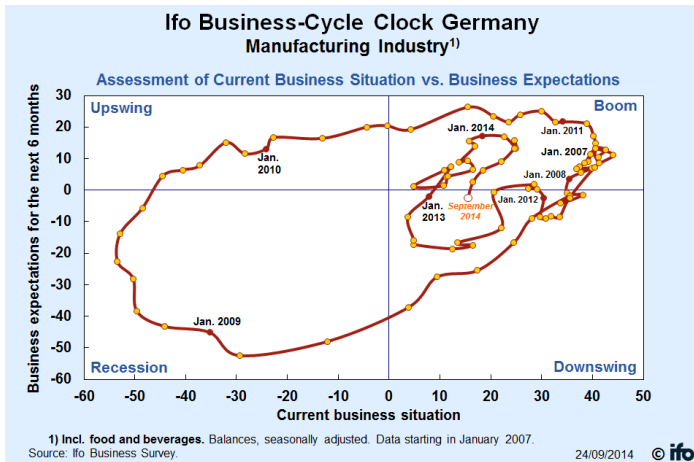
Example of a Business Monitor (Clock)

German Federal Statistical Office: Business Cycle Monitor

Statistics Netherlands: Business Cylcel Tracer

DG EFCIN Turning point indicator for the euro area
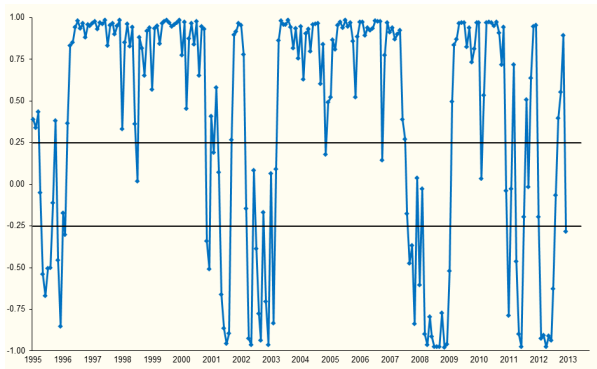
Probability for upswing minus probability for downswing

Source: OECD

Ifo Business Cycle Traffic Lights

Source: Calculations of the Ifo Institute.

KOF Business Situation Matrix

ETH
Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

KOF Business Situation Radar

KOF Business Situation Altimeter for Industries

Salden der Lagebeurteilung
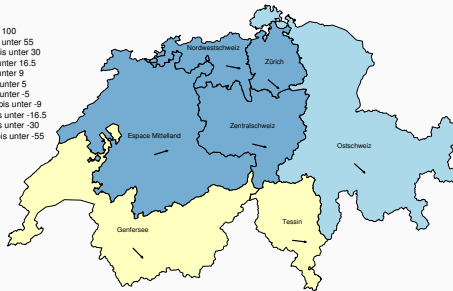
Quelle: KOF

KOF Business Situation Map

KOF Business Situation Altimeter for Regions
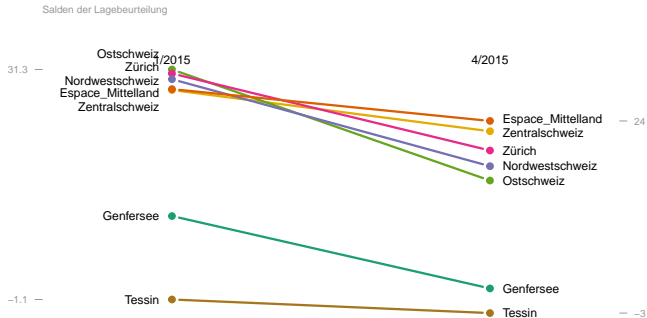
Salden der Lagebeurteilung

31.3 —

Ostschweiz
Zürich — 1/2015
Nordwestschweiz
Espace_Mittelland
Zentralschweiz

4/2015

— 24

Espace_Mittelland
Zentralschweiz
Zürich
Nordwestschweiz
Ostschweiz

Genfersee

Genfersee

–1.1 —

Tessin

Tessin — –3

Quelle: KOF

Outline

Targeted audience

Usually various user groups are targeted. One has to decide for each user group how to address them in the best way. Typical audiences targeted are

- The general public. The public can be reached directly (e.g. via the internet) or with the help of the media by using journalists as a kind of conduit.

- The media

- Expert users (analysts, scientists, well informed public)

- The survey respondents

Elements of a publication strategy

Nowadays statistical information is mainly distributed via two channels: The internet and the media.

- Transparent publication calendar (and systematic)

- Published information must be accurate and neutral. The given information may not reveal information on individual companies or persons.

- Try to write an interesting story.

- Give the date of the release and a contact.

Often the "inverted pyramid" style is used . Simply, you write about your conclusions at the top of the story, and follow with secondary points in order of decreasing importance throughout the text.

Elements of a publication strategy

The availability of statistics also depends on the extent to which survey respondents understand that data serve an important purpose by providing a mirror on the world in which we live. The more a statistical agency can show the relevance of its data, the more respondents will be encouraged to provide the data.

DG ECFIN Publication schedule

European Commission | BUSINESS AND CONSUMER SURVEYS

Publication dates 2015

Flash Consumer Confidence Indicator

Month	Publication		
	Day	Date	Time
January	Thursday	22 January 2015	16h00
February	Thursday	19 February 2015	16h00
March	Monday	23 March 2015	16h00
April	Wednesday	22 April 2015	16h00
May	Thursday	21 May 2015	16h00
June	Monday	22 June 2015	16h00
July	Thursday	23 July 2015	16h00
August	Friday	21 August 2015	16h00
September	Tuesday	22 September 2015	16h00
October	Thursday	22 October 2015	16h00
November	Friday	20 November 2015	16h00
December	Monday	21 December 2015	16h00

Economic Sentiment Indicator & Business Climate Indicator

Month	Publication		
	Day	Date	Time
January [1]	Thursday	29 January 2015	11h00
February	Thursday	26 February 2015	11h00
March	Monday	30 March 2015	11h00
April [1] [2]	Wednesday	29 April 2015	11h00
May	Thursday	28 May 2015	11h00
June	Monday	29 June 2015	11h00
July [1]	Thursday	30 July 2015	11h00
August	Friday	28 August 2015	11h00
September	Tuesday	29 September 2015	11h00
October [1]	Thursday	29 October 2015	11h00
November [2]	Friday	27 November 2015	11h00
December	Thursday	07 January 2016	11h00

[1] includes quarterly surveys of manufacturing industry, services and consumers
[2] includes investment survey

Ifo Press release

ifo Institute

Ifo Business Climate Germany
Results of the Ifo Business Survey for March 2015

Ifo Business Climate Index Rises

The Ifo Business Climate Index for German trade and industry rose to 107.9 points in March from 106.8 points last month. The index reached its highest level since July 2014. Companies were more satisfied with their current business situation. They also expressed far greater optimism about future business developments. The German economy continues to expand.

In manufacturing the climate indicator rose once again. Manufacturers were more satisfied with their current business situation. They were also clearly more optimistic about future business developments. Production plans reached their highest level since May 2014.

In wholesaling the business climate also improved. Assessments of the current business situation were far more favourable, while wholesalers scaled back their slightly optimistic business expectations. In retailing the business climate also continued to brighten. After falling in February, the business situation indicator rose again. Retailers expressed greater confidence in future business developments.

In construction, by contrast, the business climate indicator continued to fall, but remains at a high level. Contractors assessed both their current business situation and their business outlook less favourably than last month. There is still a boom in construction, but it is weakening.

Hans-Werner Sinn
President of the Ifo Institute

Ifo Business Survey
Industry and Trade,[1] March 2015

1) Manufacturing, construction, wholesaling and retailing.
Source: Ifo Business Survey.
25/03/2015

Germany (Index, 2005 = 100, seasonally adjusted)

Month/year	03/14	04/14	05/14	06/14	07/14	08/14	09/14	10/14	11/14	12/14	01/15	02/15	03/15
Climate	110.7	110.9	110.1	109.4	108.0	106.5	105.5	103.4	104.5	105.5	106.7	106.8	107.9
Situation	115.3	115.3	114.8	114.7	113.3	110.8	110.7	108.3	109.8	109.8	111.7	111.3	112.0
Expectations	106.4	106.6	105.5	104.5	103.0	102.3	100.4	98.9	100.1	101.3	102.0	102.5	103.9

Source: Ifo Business Survey.

For long time-series in Excel format consult www.cesifo-group.de/langereihen.

1/4

KOF Press release

ETH
Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

KOF Konjunkturforschungsstelle
KOF Swiss Economic Institute
ETH Zurich
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Leonhardstrasse 21
8092 Zurich
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KOF

Press Release

Zurich, 3 March 2015, 9 a.m.

Results of the KOF Business Tendency Surveys of February 2015

Consequences of the Decision by the SNB Become Apparent

According to the most recent KOF Business Tendency Surveys, the economic outlook of Swiss businesses cooled significantly in February. The current results provide the first comprehensive indications regarding the new currency situation, since in January almost 94% of participants filled in the questionnaire before the exchange rate floor on the franc was removed. In all areas of the economy covered by the survey – manufacturing, retail trade, finance, construction and the architectural and engineering sector – the economic outlook deteriorated. The position worsened particularly for manufacturers.

Breakdown according to sector

All economic sectors questioned by the KOF considered their economic outlook to be less favourable in February than in January. The fall was significant for the **construction industry and the architectural and engineering sector**, although did not occur on an extraordinary scale. The economic outlook indicator had improved significantly in the architectural and engineering sector in January, which means that the fall in February only partially reverses this rise. The direct consequences of the increase in the value of the franc should be limited in the construction industry.

G 1: KOF Business Situation Indicator
(balance, seasonally adjusted)

— KOF Business Situation

GFK Press release

Press release
The next GfK Consumer Climate report will be published on Thursday, April 23, 2015, 8.00 a.m.
press embargo: March 26, 2015, 8.00 a.m.

March 26, 2015

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Bright prospects for German consumer climate

Findings of the GfK Consumer Climate study for Germany for March 2015

Nuremberg, March 26, 2015 – German consumers are becoming ever more optimistic. Following a value of 9.7 points in March 2015, the overall indicator is forecasting 10.0 points for April. Increases were once again recorded in both economic and income expectations as well as willingness to buy.

The tug of war in Europe over the future of Greece is currently having no impact whatsoever on the consumer mood of Germans. Consumers consider the German economy to be on clear upward trend based on a weak euro, which is boosting exports, and lower energy costs. In the wake of an improving economic outlook, income expectations and willingness to buy also rose further to again surpass the record value of the previous month.

Economic expectations: upswing is stabilizing

In March, the upward movement in economic expectations continued unabated. The indicator rose by 9.6 points to 36.8 points. This is the fourth consecutive increase for the indicator. A higher value of 45.9 points was last recorded in July 2014. The indicator's upward trend has therefore clearly stabilized.

The low interest rate policy of the European Central Bank (ECB) has placed the euro under great pressure of devaluation. This has therefore significantly improved the competitiveness of German exports outside the eurozone. In addition, the effect of exceedingly low energy costs for households and companies is similar to a mini economic stimulus program.

Consequently, economic experts now regard the original growth forecast of 1.5 percent for gross domestic product (GDP) this year as too conservative. They are now forecasting an increase of almost 2 percent.

Companies also clearly consider the German economy to be on an upward trend, as is reflected in the fifth successive increase in the Ifo Business Climate Index in March.

GfK SE
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90419 Nuremberg
Germany

T +49 911 395-0

Management Board:
Matthias Hartmann (CEO)
Christian Diedrich (CFO)
Dr. Gerhard Hausruckinger
Debra A. Pruent

Chairman of the
Supervisory Board:
Dr. Arno Mahlert

Commercial register
Nuremberg HRB 25014

GFK Press release

Income expectations: upward trend continues

Given the significant improvement in the economic outlook, income expectations have also risen. After rising by 2.5 points, the indicator is now at 53.1 points. This is the third consecutive increase on an already extremely high level.

The combination of rising employment, good collective wage agreements and very low inflation have caused consumers' income optimism to rise further. And not without reason: the first collective wage agreements in the metal and electronics industries amounted to 3.4 percent. This will certainly give an indication to employees in other industries. They can expect significant increases in real income this year. As pensions are closely linked to the development of salaries and wages, pensioners can also be hopeful of considerable real income rises. According to information provided by the government, pensions look set to increase by 2.1 percent in western Germany and 2.5 percent in the new eastern federal states with effect from July 1, 2015.

Willingness to buy: sixth consecutive rise

After a sixth consecutive rise, willingness to buy has once again surpassed its eight-year high. Following an increase of 3.9 points, the indicator is now at 63 points. The propensity to consume is therefore 1.4 points below its highest ever value of 64.4 points in October 2006, shortly before the VAT increase.

The reasons for the excellent development of willingness to buy are obvious: rising employment and income prospects coupled with low energy prices are giving consumers planning security and the financial means for making major purchases with renewed vigor.

In addition, the ECB's monetary policy which aims to push interest rates to rock bottom is also boosting the spending mood, because the alternative of saving is currently not very appealing. The propensity to save remains extremely low, although a slight increase was recorded in March.

Consumer climate: highest value in 13 years

Following a value of 9.7 points in March 2015, the overall indicator is forecasting 10.0 points for April. This is its highest value since October 2001, when the indicator was at 11.0 points. The consumer climate in Germany is therefore continuing its upward trend.

GfK confirms its forecast issued at the start of the year that private spending in Germany will increase by around 1.5 percent in real terms in 2015. It will therefore be a key pillar of the German economy.

Despite the positive outlook, there are still some risks. Although Germans are currently not affected, the current battle on the future of Greece could

GFK Press release

GfK

cause uncertainty in Germany in the coming months as well as the risks are difficult to assess. If a Grexit, where Greece renounces the euro and subsequently leaves the eurozone, were in fact to materialize, the German economy could suffer a severe setback as a result.

PLEASE NOTE: publication date for April has changed:
Thursday, April 23, 2015, 8 a.m.

Provisional publication dates for 2015

Thursday, March 26, 2015, 8 a.m.	Thursday, April 23, 2015, 8 a.m.
Wednesday, May 27, 2015, 8 a.m.	Thursday, June 25, 2015, 8 a.m.
Wednesday, July 29, 2015, 8 a.m.	Friday, August 21, 2015, 8 a.m.
Thursday, September 24, 2015, 8 a.m.	Wednesday, October 28, 2015, 8 a.m.
Thursday, November 26, 2015, 1 p.m.	Tuesday, December 22, 2015, 8 a.m.

The following table shows the development of the individual indicators in March in comparison with the previous month and prior year:

	March 2015	February 2015	March 2014
Economic expectations	36.8	27.2	33.2
Income expectations	53.1	50.6	45.6
Willingness to buy	53.0	59.1	55.5
Consumer climate	9.7	9.3	8.3

The following graph shows the development of the consumer climate indicator over the past few years:

GfK Consumer Climate indicator (as at: March 2015)
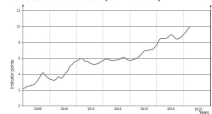
GFK Press release

About the study

These findings are extracts from the "GfK Consumer Climate MAXX survey", which is based on around 2,000 consumer interviews conducted each month on behalf of the European Commission. The report contains charts, forecasts and a detailed commentary regarding the indicators. In addition, the report includes information on proposed consumer spending in 20 different areas of the consumer goods and services markets. The GfK Consumer Climate survey has been conducted since 1980.

The consumer climate explicitly refers to all private consumer spending. However, depending on the definition, only 30 percent of private consumer spending is accounted for retail. The remainder is attributable to services, travel, rent, health services and the entire personal care segment.

GfK is predicting a rise in private consumption of 1.5 percent for 2015. Again, this does not relate to just retail sales, but to all consumer spending. Last year, GfK also forecast that private spending would increase by 1.5 percent. According to figures from the Federal Statistical Office, private spending grew by 1.2 percent in 2014.

Willingness to buy is a mood indicator, as are all the other indicators. It examines whether consumers think it is advisable to make major purchases at present. Even if they answer "yes", two further requirements need to be fulfilled for a purchase to be made: consumers must have the money that is required for such a major purchase and also regard this acquisition to be necessary. In addition, it only relates to consumer durables, which require a greater budget.

The findings of the consumer climate survey based on around 2,000 interviews conducted each month on a representative sample of the German population. This survey tool is subject to continuous quality controls, especially in relation to the representativeness. The fact that the results are used and recognized in the field of empirical legal research (for example, the likelihood of confusion between products) is a testament to the exceptionally high quality of this survey. This means that the results are quality approved by experts and must stand up in court.

Further information: Rolf Bürkl, Tel. +49 911 395-3056,
konsumklima@gfk.com

GFK Press release

The table below provides an overview of the following indicators:

Economic expectations	This index is based on the following question to consumers: 'How do you think the general economic situation will develop in the next 12 months?' (improve – stagnate – deteriorate)
Income expectations	This index is based on the following question to consumers: 'How do you think the financial situation of your household will develop in the next 12 months?' (improve – stagnate – deteriorate)
Consumption and buying willingness	This index is based on the following question to consumers: 'Do you think it is advisable to make major purchases at the moment?' (good time – neither good nor bad time – bad time)
Consumer climate	This index is used to describe private consumption. Key factors are income expectations, buying willingness and savings trends. The economic outlook has a more indirect effect on the consumer climate, generally as a result of income expectations.

About GfK

GfK is the trusted source of relevant market and consumer information that enables its clients to make smarter decisions. More than 13,000 market research experts combine their passion with GfK's long-standing data science experience. This allows GfK to deliver vital global insights matched with local market intelligence from more than 100 countries. By using innovative technologies and data sciences, GfK turns big data into smart data, enabling its clients to improve their competitive edge and enrich consumers' experiences and choices.

For more information, please visit www.gfk.com, or follow GfK on Twitter: www.twitter.com/gfk_en

OECD Press release

The lead: The first paragraph

The first paragraph, or lead, is the most important element of the story. The lead not only has to grab the reader's attention and draw him or her into the story, but it also has to capture the general message of the data.

The lead is not an introduction to the story. On the contrary, it should tell a story about the data. It summarizes the story line concisely, clearly and simply.

It should contain few numbers. In fact, try writing the first sentence of the lead using no figures at all.

Don't try to summarize your whole report. Rather, provide the most important and interesting facts. And don't pack it with assumptions, explanations of methodology or information on how you collected the data.

The lead: The first paragraph

The lead paragraph should also place your findings in context, which makes them more interesting. Research shows that it is easier to remember a news report if it establishes relevance, or attempts to explain a particular finding. Exercise caution, though. It is not a good idea to speculate, especially if your statistical office cannot empirically establish causality, or does not produce projections.

Give enough information so the reader can decide whether to continue reading. But keep it tight. Some authors suggest five lines or fewer - not five sentences - for the opening paragraph.

Graphs

A picture is indeed worth a thousand words, or a thousand data points. Graphs (or charts) can be extremely effective in expressing key results, or illustrating a presentation.
An effective graph has a clear, visual message, with an analytical heading. If a graph tries to do too much, it becomes a puzzle that requires too much work to decipher. In the worst case, it becomes just plain misleading.
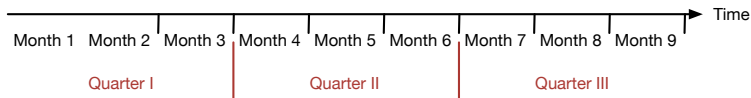
Tables

Good tables complement text. They should present numbers in a concise, well-organized fashion to support the analysis. Tables help minimize numbers in the statistical story. They also eliminate the need to discuss insignificant variables that are not essential to the story line.

Outline
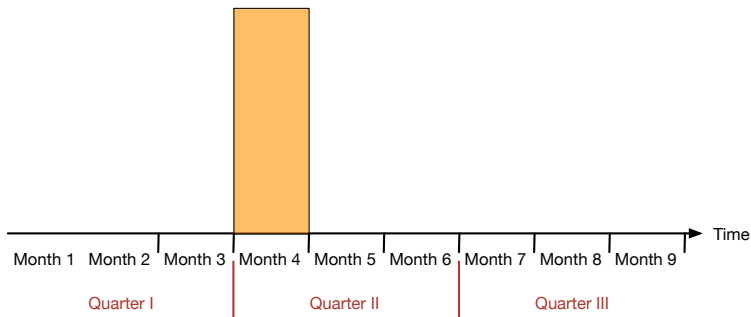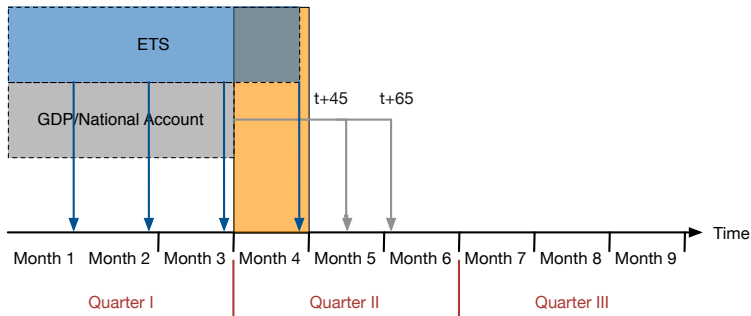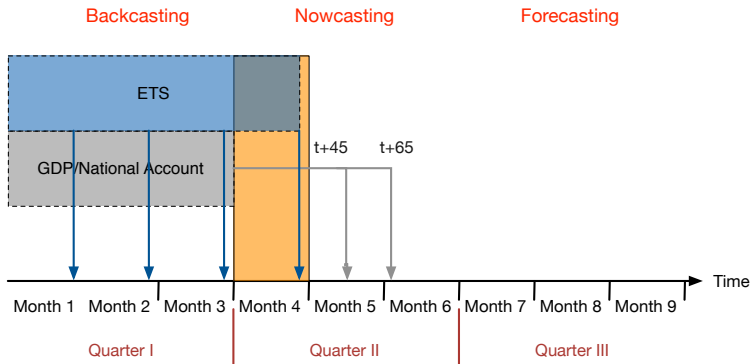
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Outline

Economic research (macro and micro)

Expectation formation
(on which information base?)

Epidemiological
Expectations Hypothesis

Status Quo Bias

Economic research (macro and micro)