ETHzürich

KOF Konjunkturforschungsstelle

KOF Bank and Insurances Sector Metainformation

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History of KOF Business Tendency Surveys

Before, during and after the Second World War, the business situation of Swiss companies was rather unstable due to their dependence on foreign business partners. It was difficult to obtain swift information on current economic and political developments. In 1937, companies in trade and industry therefore set up a group to promote the exchange of information. A complementary economic research institute (today's KOF Swiss Economic Institute) was established a year later.

1955 saw the introduction of written standardised questionnaires, which were given out before meetings to survey the attending companies in regard of their business situation. The surveys were modelled on the predominantly qualitative surveys conducted by INSEE in Paris and Ifo Institute in Munich. This was the beginning of the monthly and quarterly self-administered KOF Business Tendency Surveys with written questionnaires.

The early range of sectors - industry, retail and wholesale - was again expanded from 1988 on. Initially, the focus was on the accommodation and food service activities and the construction industry, two particularly cyclical sectors. The expansion was completed in 2006 with the introduction of private sector service industries that had previously not been covered. From 1999 onwards, the KOF Business Tendency Surveys were successively adapted to EU survey standards.

Concept of Qualitative Business Tendency Surveys

In contrast to the common official statistics, which are based on quantitative data with delayed availability, the business tendency surveys contain qualitative questions and data are quickly available. The questions on the historical development of key business parameters such as incoming orders, production, inventories, prices and employment, can be answered with the help of categories (e.g. higher, same, lower). Hence, there is no need to wait for accounting, statistical or inventory data. In addition, the businesses are asked about the future development of certain business activity parameters (e.g. expected incoming orders: will go up, will remain unchanged, will go down) and for assessments of the current situation (e.g. finished goods inventory: too high, normal, too low).

General Information on the Financial and Insurance Service Sectors Survey

The quarterly bank survey was launched in 2000, the insurance survey followed one year later. The option of completing the voluntary online survey was offered from the

beginning in the case of both surveys. Various questions relating to historical tendencies offered five response categories instead of the usual three. This was done to obtain a more differentiated picture of the business situation. In 2010, all tendency questions were switched back to the three-category scale. In the same year, the other financial services segment was added and the two surveys were merged to form the financial and insurance service survey. The survey is now being conducted in three languages (de, fr, it) on a monthly basis.

Nowadays, the survey consists of a monthly questionnaire with additional quarterly questions. Quarterly questions are included in the survey in the first month of each quarter. The questionnaire is available at the surveys KOF website (KOF Surveys). Interviews with respondents show that on average the questionnaire can be completed in approximately 10 - 15 minutes.

At the moment, the firm panel of the KOF Financial and Insurance Service Sectors Survey comprises 286 firms that participate on a monthly basis. Among those, we find 48 large firms (more than 250 employees), 43 medium-sized firms (more than 50, but less than 250 employees) and 201 small firms with less than 50 employees.

Description of Aggregation Procedure

For results at NOGA 3-digit level and below the responses are weighted by firm size measured through number of employed (full time equivalents). Since there are a view huge firms which could dominate results, the weight of huge firms is reduced.

At 2-digit levels in addition to firm size weighting, population information is used for aggregation. In a first step firms are separated in three size classes (small, medium, large) and size weighted results for each size class are calculated. The three size class results are aggregated to 2-digit levels by use of the respective share of employed in the population. Overall results (64+65+66) are calculated with weighting by share of employed in the population.

Response Rates and Non-Response

During the last complete survey wave, i.e. in September 2018, the response rate amounts to 77%. The average response rate during the last 12 months, i.e. from August 2017 to September 2018, was 74%. In order to reduce non-response, KOF Swiss Economic Institute reminds missing respondents by telephone. In order to mitigate the effect of non-response on the results, we carry forward missing observations for period. That is, we replace the missing value with the response of the previous survey.

Survey Mode and Field Period

Since 2000, the respondents can chose to participate online or to fill out a paper questionnaire. Currently, 73% of all sample firms participate online, 27% of all participants answer via paper-questionnaire. The field period starts in the first week of the reporting month and ends in the last week of the month.

Quantification, Seasonal Adjustment, MCD and Standard Errors

We quantify survey questions with a categorical response scales using the balances method. That is, we calculate the net balance that is defined as the percentage share of (+) responses minus the percentage share of (-) responses.

Certain sectors display seasonal patterns in their answers. In order to correct for seasonal movements in the aggregated series, we seasonal adjusted and smoothed results using the CENSUS-X13ARIMA-SEATS procedure.

In order to validate the quality of our aggregate series we compute the MCD (Months of Cyclical Dominance) for monthly questions and the QCD (Quarters of Cyclical Dominance) for quarterly questions. We report this measure in Table 1 and Table 2.

While MCD and QCD indicates the average signal in our time series, it does not say anything about the precision of these estimates. In order to provide a general idea of the precision of our estimated time series, KOF computes standard errors (s.e.) and the interquartile range (IQR) for the main statistic of all series. Generally, analytical formulas for the standard errors and the interquartile range around these statistics might not be available or might be hopelessly difficult to evaluate. Fortunately, bootstrapping is a very general method for estimating s.e. and IQR. Furthermore, bootstrapping does not require any assumptions about how our data are distributed. Finally, we know that standard errors of any sample statistic is the standard deviation of the sampling distribution for that statistic. Hence, we bootstrap (500 iterations) the distribution for the main statistics of all questions and use it to calculate the standard errors and the interquartile range for each statistic. Due to the high computational burden, we bootstrap standard errors and IQR only once a year. Table 1 and Table 2 reports the average standard error of each survey question over the last ten years. Currently, we display average values from April 2011 to September 2018.

Description	Frequency	MCD	s.e.	IQR
Assessment Business Situation	monthly	4	7.19	9.72
Assessment Employment	monthly	5	6.47	8.70
Change Business Situation (last 3 months)	monthly	5	7.78	10.25
Change Demand (last 3 months)	monthly	6	8.69	11.48
Change Employment (last 3 months)	monthly	5	8.23	11.04
Expected Change Business Situation (next 6 months)	monthly	3	7.22	9.57
Expected Change Demand (next 3 months)	monthly	5	7.38	9.72
Expected Change Employment (next 3 months)	monthly	5	7.07	9.47
Expected Change Selling Price (next 3 months)	monthly	12	4.70	6.24

Table 1: MCD (Months of Cyclical Dominance)

Notes: This table displays various statistics for each monthly survey question of the KOF Financial and Insurance Service Sectors Survey. MCD shows the months of cyclical dominance (MCD). In order to calculate the MCD, we confine the data sample to the last years, i.e. from April 2011 to September 2018. s.e. reports the average standard error of each survey question over the last ten years. IQR shows the interquartile range (IQR) of the sampling distribution for each statistic. We obtain both, standard errors as well as IQR using bootstrap methods (500 iterations). Due to the high computational burden, we bootstrap standard errors and IQR only once a year. Currently, we display average values from April 2011 to September 2018.

Description	Frequency	QCD	s.e.	IQR
Assessment Technical Capacity	quarterly	2	5.11	6.68
Assessment Change Competitive Position (last 3 months, domestic)	quarterly	2	5.87	7.68
Assessment Change Competitive Position (last 3 months)	quarterly	2	6.17	8.22
Change Business Expenses (last 3 months)	quarterly	2	9.34	12.33
Change Operating Income (last 3 months)	quarterly	1	9.62	12.77
Change Earnings (last 3 months)	quarterly	3	10.09	13.33
Expected Change Business Expenses (next 3 months)	quarterly	2	8.60	11.25
Expected Change Operating Income (next 3 months)	quarterly	2	8.02	10.73
Expected Change Earnings (next 3 months)	quarterly	1	8.89	11.73

Table 2: QCD (Quarters of Cyclical Dominance)

Notes: This table displays the quarters of cyclical dominance (QCD) for each quarterly survey question of the KOF Financial and Insurance Service Sectors Survey. We confine the data sample to the last years, i.e. from September 2008 to September 2018. s.e. reports the average standard error of each survey question over the last ten years. IQR shows the interquartile range (IQR) of the sampling distribution for each statistic. We obtain both, standard errors as well as IQR using bootstrap methods (500 iterations). Due to the high computational burden, we bootstrap standard errors and IQR only once a year. Currently, we display average values from April 2011 to September 2018.

International comparability and Publication

The survey contains most of the questions contained in the harmonized survey program of the Directorate General for Economic and Financial Affairs of the European Commission. The harmonized program is implemented in almost all member and candidate countries of the European Union and forms an important international standard.

The results of the KOF Business Tendency Surveys are used to construct indicators which are published regularly. The main indicator for the Swiss business cycle is the

KOF Economic Barometer. There is a fixed calendar for the publication of the indicator. This calendar is available at the KOF website. Media agencies can get the media release with an embargo 10 minutes before its publication. Other indicators grounding on the surveys include the KOF Employment Indicator and the KOF Business Situation, which is published in the KOF Bulletin. Detailed results of the surveys are presented on quarterly press conferences.

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