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**Working Paper**

**Business surveys in the financial sector:  
[ECFIN/2001/6 ; final report]**

KOF Working Papers, No. 75

**Provided in Cooperation with:**

KOF Swiss Economic Institute, ETH Zurich

*Suggested Citation:* Bloesch, Daniel; Etter, Richard (2003) : Business surveys in the financial sector: [ECFIN/2001/6 ; final report], KOF Working Papers, No. 75, ETH Zurich, KOF Swiss Economic Institute, Zurich

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**K O F**

Konjunkturforschungsstelle  
Swiss Institute for  
Business Cycle Research

# Arbeitspapiere/ Working Papers

Daniel Bloesch and Richard Etter

Business Surveys in the Financial Sector

No. 75, August 2003

**ETH**

Eidgenössische Technische Hochschule Zürich  
Swiss Federal Institute of Technology Zurich

**Study on**

# **Business Surveys in the Financial Sector**

**ECFIN/2001/6**

## **Final Report**

July 2002 (released for publication in August 2003)

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## ***Executive Summary***

Business Tendency Surveys (BTS) are qualitative economic surveys. Their use is mainly for short-term economic analysis, including the prediction of turning points in the economic cycle. Business surveys, as a synonym of BTS, ask qualitatively about the responding company's current situation and short term developments. The surveys are carried out on a national level, i.e. the companies are asked about their domestic business activities only. Aggregated national or regional results are used as input for business cycle analysis.

To compare the results with other countries, the questionnaires, the timing and the methods should be harmonised. The joint harmonised EU programme has been started in accordance with a decision of the Commission in 1961. In 1997 coverage of the programme has been enlarged to the service sector, but financial services were not included, due to uncertainty whether the questionnaire was adequate.

This study is an evaluation for a harmonised business survey in the financial sector. We analyse the possibilities for a survey in this field and give detailed recommendations.

Just a few institutions are conducting business surveys in the financial sector. Some of the surveys started only recently. The number and type of questions differ considerably between these institutions. This study provides an overview and discussion of surveys and questions and reveals insight into the information content and applicability of indicators to use in business surveys in the financial sector. The statistical analysis carried out with survey data shows generally a limited forecasting ability of firms in the financial sector with regard to their own business activity. The investigation of similarities and differences in the time series reveals further insight into the information content of the indicators and proves to be very informative and useful for a clear structure of the indicators analysed in this study. The survey data was kindly provided by the Confederation of British Industry (CBI) out of their Financial Services Survey conducted in co-operation with PriceWaterhouseCoopers.

The discussion of surveys conducted and questions used in the financial sector and the complementary statistical analysis lead to a pre-selection of indicators which are checked in a pilot study in different branches of the financial sector in Switzerland. The pilot study covers the output-indicators demand, volume of business and operating income. Indicators for input are employment and operating costs. Further indicators are business situation and price development.

The harmonised EU service survey includes five questions: Assessment of the business situation, past and expected development of demand as well as past and expected development of employment. One conclusion drawn from the study is that these questions are also applicable to the financial sector.

The harmonisation of a survey requires a small set of questions useful for different sectors and different branches within the sectors. Experience of business surveys currently conducted and results of the pilot study show that it is not practicable to record price trends in the financial sector by a single question. Consequently, price measurement may be the topic of a more detailed survey but is not suitable for a harmonised survey.

Several interesting branch-specific indicators are discussed and some are recommendable to use in a business survey in the respective branch. Especially the development of non-performing loans and the expected development of loans in the banking sector may provide information otherwise not collectable. With regard to the harmonised EU service survey in the financial sector there is no indicator which is necessary and recommended to use in a harmonised survey.

### **Indicators of a Harmonised Service Survey in the Financial Sector**

The analysis done in this study leads to the following indicators recommended to use in a harmonised service survey in the financial sector:

#### *The Firms' Overall Economic Situation*

A question concerning the assessment of the business situation (good/satisfactory/bad) is already included in several business surveys currently conducted in the financial sector. Firms have no difficulty in responding to such a question. It is a unique form of qualitative information not collected by quantitative statistics and particularly suited for the service sector including financial services where the performance of a firm is hard to define. An assessment of the business situation may be made at any time and an optimal frequency is not a priori specified. This type of question has a long tradition in business surveys.

We recommend asking about an assessment of the business situation in the financial sector and using a monthly frequency to make results comparable to sectors already covered by the harmonised EU service survey. The wording of this question should avoid the term “business climate”.

An additional question on expectations concerning the future business situation is less recommendable for a harmonised survey, because every evaluation of an current situation also includes some forward-looking elements and the predictive power of most expectation variables in the financial sector is very limited.

#### *Output*

Output measurement in the service sector is difficult because services are of intangible character. Several indicators can describe the development of output: operating income, demand or the volume of business. Operating income – consisting of interest income, commission and fee income, premium and investment income – is used in national accounts for measuring output of most of the activities in the financial sector. Using the same indicator also in a business survey with qualitative responses (up/same/down) allows to compare this information. However, availability of operating income is better on a quarterly basis than on a regular monthly basis. For this reason the study recommends to request the past development of operating income on a quarterly basis. For life- and non-life insurance, the methods of output measurement used in the national accounts are not applicable and it is recommended to use the past development of operating income, consisting of premium and investment income, as an approximation of output trend.

Demand is an indicator for output because services have to be produced when they are demanded. Differences of the information content between demand and output measured by operating income or volume of business may occur if services demanded are charged with a delay or not charged at all. Experience of surveys currently conducted and the pilot study show that the question on the development of demand is appropriate for the financial sector and availability of information is rather high on a monthly basis. Considering the low

predictive power of output variables in the financial sector it is not really necessary to request past and expected development of demand separately. Harmonisation, however, calls for the use of both questions.

To measure output, the question recommended on the past development of operating income captures the development of output on a quarterly basis as closely as possible. We additionally recommend using the questions from the harmonised EU service survey on the past and expected development of demand as monthly indicators of the past and future development of output.

### *Input*

Input in the financial sector can be measured by operating costs – consisting of personnel expenses and other operating expenses – which are factor payments for the commonly known input factors. Operating costs are not available on a monthly basis for all financial intermediaries. This applies to personnel as well as other operating expenses. Comparable to operating income, we recommend asking about the qualitative development of operating costs on a quarterly basis and for the past development only.

Labour is the most important input factor in the service sector and especially also in the financial sector. The development of employment may therefore serve as an approximate indicator for the development of input which is available on a monthly basis. However, acceptance of such a question is not as high as for other qualitative questions and the indicator is not as significant for the business. There exist some difficulties with this indicator but none of a serious nature.

To measure input, the question recommended on the past development of operating costs captures the development of input as closely as possible on a quarterly basis. We additionally recommend using the questions from the harmonised EU service survey on the past and expected development of employment as monthly indicators of the past and future development of input. The wording of this question should, however, include the specification “full-time adjusted”.

### **Specific Issues Concerning the Survey Method**

The study investigates two specific issues concerning the survey method. The first issue concerns confidentiality. One of the most important assets of an institution which conducts surveys is the level of trust placed in its confidentiality. To achieve and protect a good reputation, every action and every step of a survey has to be considered under the aspect of preserving and increasing the general image of trust. For firms participating in a panel survey in the financial sector, confidentiality has an even higher relevance than for the average enterprise, because of their financial operations which demand privacy and confidentiality in financial transactions. With regard to the wide-spread oligopolistic structure of the financial sector, every possible step – including non-publication – should be taken to prevent any disclosure of company-specific information. Besides the measures for security and confidentiality known and used for surveys in other sectors, no special measures are proposed for the financial sector. But a survey in the financial sector requires even greater attention to be paid to these aspects.

The second issue concerns the response rate. A high response rate is probably the most important single factor to secure a high quality of survey results. The motives for participation or non-participation in a survey are investigated by a special survey conducted within the



Swiss banking sector. The two core motives for participation – interest in results published and support of research done at the institution conducting the survey – show that receiving results in return for participation as well as the reputation of the institution are main factors for attaining high response rates. The two motives for non-participation mentioned most frequently are “The task of responding is too demanding” and “The information asked is not relevant”. National results may be of limited interest to the respondents. Therefore, national reports should include as soon as available results of the whole of the EU, too.

The special survey on motives for (non-)participation was accompanied by questions on preferences for the mode of survey and the means of publication of regular results. The results show a strong preference for the traditional paper questionnaire and a certain aversion to telephone interviews. In addition to paper questionnaire, there is some “need” for an e-mail rather than for a website solution as a second survey mode. Similar preferences – paper preferred to electronic devices – are indicated for the means of publishing the results.

## 1 Introduction

Business Tendency Surveys (BTS) are qualitative economic surveys. Their use is mainly for short-term economic analysis, including the prediction of turning points in the economic cycle. Business surveys, as a synonym of BTS, are a complement of quantitative statistics: they are usually conducted on a higher frequency and the results are published faster. Business surveys ask about the responding company's current situation and short term developments. The surveys are carried out on a national level, i.e. the companies are asked about their domestic business activities only. Aggregated national or regional results are used as input for business cycle analysis.

For the comparison of the results with other countries, the questionnaires, the timing and the methods should be harmonised. The EU started the joint harmonised EU programme<sup>1</sup> in accordance with a decision of the Commission in 1961. In 1997 coverage of the programme has been enlarged to the service sector, again in accordance with a decision of the Commission. Service sector results are published since July 2001. The applicant countries in central and eastern Europe have also started conducting business surveys following the harmonised EU programme.

A key characteristic of the joint EU harmonised programme is the monthly basis (except biannual investment surveys). The questionnaire of the industry survey includes additional quarterly questions. In the 1997 extension of the programme to the service sector, the financial services were not included. In many countries the financial sector covered only a small fraction of value added. Moreover, the business activities differ quite considerably to other services. The general wording of the questions in the harmonised EU service survey was considered as difficult to use for the financial sector.

However, the financial sector is a key-element of the whole economy. Therefore the need for a survey in the sector of financial services became more and more obvious. At the November 1999 meeting of the business survey experts, the sectors 65 to 67 (NACE (Rev.1)) were among those selected as being of priority for extension of coverage.

This study is an evaluation for a harmonised business survey in the financial sector. We analyse the possibilities for a survey in this field and give detailed recommendations. Chapter 2 starts with an overview of questions used in different surveys currently conducted in the financial sector. We make an assessment of the information content and applicability of these questions to a harmonised survey. In Chapter 3, we present a statistical analysis of the information content of different questions. Against this background we launched a pilot study for a survey in the financial sector in Switzerland. The study design and results are shown in Chapter 4. Two important issues of conducting business tendency surveys are considered. In Chapter 5 the topic of confidentiality is discussed, which is even more relevant to the financial sector than to other branches. Chapter 6 deals with the problem of response rate. With a special survey we search for the motives of participation and of non-participation. The study concludes with Chapter 7, giving recommendations about questions to use in a harmonised EU service survey in the financial sector.

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<sup>1</sup> Overview of the programme in "Communication from Mr Solbes to the Commission on the joint harmonised EU programme of business and consumer surveys" in European Economy, No 4, 2000, p. 387-410.

## 2 **Indicators of Business Surveys in the Financial Sector**

### 2.1 Types of Qualitative Questions in Business Surveys

In establishing a new Business Tendency Survey (BTS) for a particular economic field or for a whole economic sector, the core element is the question-programme. Moreover, all questions collect information regarding the situation of the respondent's enterprise and not regarding the situation of the branch or the whole economy. Because of its qualitative character, the questions differ considerably from questions of a quantitative survey. In BTS there are four types of questions:

- *Past development:* These questions focus only on the development of the recent past. The question does not have to give information about the level of an activity variable but about the direction of change. In aggregated form, the indicators of these questions give valuable information about the economic dynamics.
- *Judgement:* This subjective information takes into consideration the past and expected future development. In contrast to the first type, the judgement has the character of a level of information. These questions are in particular useful because they go in the business cycle theory with the growth cycle concept. Judgements give an excellent information regarding the current situation of the topic asked.
- *Expectation and plans:* Expectations are predictions by firms on the development of the economic indicator asked. The evolution is determined by external factors. So, the firms have hardly any influence on its size and development. Plans are based on internal information and thus more reliable than expectations. Firms can decide on the future development of some economic variables of its enterprise.

### 2.2 Overview of Business Surveys in the Financial Sector

Just a few institutions are conducting business surveys in the financial sector. Some of the surveys started only recently. The number and type of questions differ considerably between these institutions. As reference in Table 2.2, the questions of the harmonised EU service survey are indicated by an asterisk. The five indicators are assessment of business situation, past and expected development of demand as well as of employment.

The questionnaires of the surveys and questions discussed in this Chapter are available in Appendix 1. As an exception the questionnaire used by the Poznan University of Economics is not attached to the Appendix.

**Table 2.2 Business surveys in the financial sector:  
Overview of currently used qualitative questions**

	CBI/PwC		ifo		LZB/ifo		GKI		KOF		NZIER		PUE	
	ex post	ex ante	ex post	ex ante	ex post	ex ante	ex post	ex ante	ex post	ex ante	ex post	ex ante	ex post	ex ante
<b>a) General Indicators</b>														
<i>Output</i>														
- Income	X	X	X	X	X				X	X			X	X
- Demand *	X	X	X	X	X	X			X	X	X	X	X	X
<i>Input</i>														
- Employment *	X	X			X	X			X	X	X	X		
- Costs	X	X							X	X	X	X		
<i>Overall Economic Situation</i>														
- Business Situation *	X		A	X	A	X			A	X			X	
- Profitability	X	X					X	X	X	X	X	X	X	X
<i>Capacity</i>														
- Technical Capacity					A				A					
- Personnel Capacity					A				A					
<b>b) Other General Indicators</b>														
- Prices	X	X			X	X	X	X	X	X	X	X		
- Competitive Position	X		X	X			X	X	X					
- Limits of Business		X										X		
<b>c) Branch-Specific Indicators</b>														
<i>Banking</i>														
- Loans		X				X		X	X	X			X	
- Non-Performing Loans	X	X											X	
- Credit Rating								X	X	X				
- Refinancing Situation						X			X					
<i>Insurance</i>														
- Insurance Claims	X	X							X	X				
- Technical Reserves									X	X				
- Value of New Business	X	X								X				
- Insurance Contracts									X	X				
- Surrendered or Lapsed (Life-)Insurance Contracts	X	X	X	X										
<i>Other Financial Intermediaries</i>														
- Volume of Funds					X	X								
- Investment					X	X								

\* Harmonised EU Service Survey

A Current assessment of the indicator

X Development/change of the indicator

### 2.2.1 CBI/PwC – Financial Services Survey

The Confederation of British Industry (CBI) in London, in co-operation with PriceWaterhouseCoopers (PwC) conducts a large qualitative survey covering all branches of the UK financial sector. The quarterly survey started in 1989/Q4. Last year, the Financial Services Survey (FSS) has been expanded with a chapter to “new economy: e-business” and now covers 6 pages. The average response in 2001 was 140 companies approximately. The aim of the survey is a detailed picture of the economic development in the past and the near future. Questions interpreted as similar to the five questions of the harmonised EU service survey are part of the CBI/PwC FSS. Some questions are formulated in a general way as for other surveys, but quite a number of questions use branch-specific wording.

- *Past development and judgement:* Changes of employment, profitability, competitive position inside and outside EU, costs and the judgement of the business situation are formulated in a general way. For demand, income and prices, the vocabulary of financial services is adapted. Apart from total changes there are more detailed questions on most of these items. Some questions are specifically related to banks or to insurance.
- *Expectation and plans:* The CBI/PwC Financial Services Survey uses a broad set of indicators for the questions on expectations and plans, but only profitability, employment and some elements of limits of business are formulated in a general form. Again, demand, income and prices use a branch-specific vocabulary. Apart from total expected or planned changes there are more detailed questions on most of these topics. Additionally there are three indicators exclusively for insurance and one indicator for banks.

### 2.2.2 ifo Institute – Insurance Survey

The ifo Institute in Munich, Germany conducts a quarterly survey in the insurance sector. The survey was launched in 1999/Q4. The sample size is approximately 250 insurance institutions and a response rate of 80% to 85% is achieved. A mixture of general and specific questions are used, but no plans are included. There are no questions on employment – two out of the five questions from the harmonised EU service survey. Some questions use an ordinal scale with 5 response categories.

A special method is adapted to handle the periodicity. The quarterly questionnaire asks about changes in the past, aggregated since the beginning of the current year, compared to the same period of the previous year. This means that for questions about the past development the survey conducted at the end of the first quarter covers 1 quarter, the survey conducted at the end of the second quarter covers 2 quarters, and so on. Expectations are asked for the rest of the year, compared to the same period of the previous year. At the end of the year, expectations for next year are asked.

- *Past development and judgement:* The assessment of the business situation is formulated as in other surveys. The question about the changes in the competitive position uses no geographical differentiation. Moreover, in the subgroup “life insurance” the firms have to compare their branch with some other competitive branches; this is not the usual concept of BTS. The other subgroups have to compare the firms position to the other firms in the identical subgroup. Demand and income are asked in a branch-specific way. There is one branch-specific indicator. A question on the development of employment is not included.
- *Expectation and plans:* The ifo questionnaire for insurance includes only questions on expectations, not on plans. Plans for changes in employment are not included. The wording of the questions on future business development and the expected competitive position is a standardised formula. Demand and income had to be adapted to insurance. In addition there is one specific indicator on insurance.

### 2.2.3 LZB/ifo – Financial Services Survey

The Deutsche Bundesbank, Regional Office Munich, also known as Landeszentralbank im Freistaat Bayern (LZB) in co-operation with ifo Munich conducts a quarterly survey in the Bavarian financial sector, excluding insurance. The size of the questionnaire is two pages. The survey started in 2000/Q4. Almost 800 companies in the financial sector participate in the survey. The response rate is very high, i.e. 90% and up.

- *Past development and judgement:* Changes in employment and demand as well as the judgements of the business situation, of technical and of personal capacity use a general wording. The questions on income and prices adapt the wording appropriate for banks. Some branch-specific indicators are requested in different branches of the financial sector.
- *Expectation and plans:* Concerning the perspectives, the questionnaire is limited to three items, formulated in a general type of wording: development of business situation, demand and employment. Demand is slightly specified for the sector.

#### 2.2.4 GKI – Banking Survey

The quarterly survey of the GKI Economic Research Co. in Budapest, Hungary and the Hungarian Banking Association exclusively covers the banking sector. The survey was launched in 1991 and is conducted twice a year. The sample consists of all banks in Hungary and the respondents represent a market share of 70-80%. Most of the questions are of a quantitative nature. Others are open questions which are also not considered in this study. Some qualitative questions are not about the economic situation of the firm itself but of general development in the Hungarian economy. None of the questions of the harmonised EU service survey is included in the GKI Banking Survey. For these reasons, only a few questions can enter our comparison.

- *Past development and judgement:* There is one topic which is formulated in general terms: changes in profitability. Additionally, GKI asks about the development of loans, a branch-specific indicator.
- *Expectation and plans:* On a qualitative basis the questionnaire contains only one question on future development: the expected changes of profitability is formulated in a general manner.

#### 2.2.5 KOF – Banking and Insurance Surveys

The KOF Swiss Institute for Business Cycle Research in Zurich, Switzerland conducts surveys in banking and insurance with separate questionnaires. The banking survey started in 2000/Q1. The 100 banks in the sample achieve a response rate of 70-80%. The Insurance Survey was launched in 2001/Q1. The response rate is approximately 60-70% but the sample in this branch is 30 institutions only. Both questionnaires cover a broad set of indicators. For this reason, the questions are on the whole adapted to the vocabulary of banks and insurance. Some questions use an ordinal scale with 5 response categories.

- *Past development and judgement:* Changes of employment, demand, profitability, costs and the judgements of business situation and of personal capacity are formulated in a general way. For income and prices, the vocabulary is adapted to banks and to insurance separately. Apart from total changes there are more detailed questions on most of these items. Some questions are related specifically to banks or to insurance. Because of institutional reasons there is no international competition in insurance, therefore the question on the competitive position is only in the questionnaire for banks.
- *Expectation and plans:* KOF uses a broad set of indicators for the forward –looking questions, but only business situation, profitability and employment are formulated in a general form. Demand, income and prices use a branch-specific vocabulary. Apart from total expected or planned changes there are more detailed questions on most of these items. Additionally there are two indicators exclusively for insurance and two indicators for banks.

## 2.2.6 NZIER – Survey of Business Opinion

The N.Z. Institute of Economic Research (Inc.) in Wellington, New Zealand covers a large part of the service sector with its business survey. Because of the broad spectrum of branches, most questions are formulated in a general manner. NZIER is the only institution which uses this general wording on all main topics of the survey. There is one question on interest rates, but the development with regard to the firms' clients and customers is asked which is not a traditional type of question in business tendency surveys.

- *Past development and judgement:* The questionnaire contains no judgement, but five questions on the development of indicators. The development of the volume of services (interpreted as demand in Table 2.2), employment, costs, profitability and prices are all in a general type of wording. NZIER does not ask about changes in total costs but about the relation of costs per service. This gives a hint about productivity development.
- *Expectation and plans:* All questions on future development are formulated in a general way. The indicators are asked for the past development too. Additionally, there is one question on the general business situation in New Zealand. This is again not a traditional type of questions in business surveys.

The questions used in the NZIER Survey of Business Opinion, as outlined in Table 2.2, are only partly considered in Chapter 2.3.

## 2.2.7 PUE – Banking Survey

The Poznan University of Economics (abbreviated as PUE) in Poznan, Poland conducts a quarterly business survey in the banking sector since 1992. The Department of Marketing Research is the institute conducting the survey, independently of any other institution. The sample size is more than 500 banks and the response rate is recorded to be 65-70%.

The questionnaire consists of 4 parts: 1) General evaluation and prediction of the situation (questions concerning general business activity of the bank), 2) Detailed evaluation and prediction of the situation (questions concerning situation in particular banking services), 3) Special questions (quarterly changed subjects), 4. Bank's characteristics (questions concerning features used in segmentation and/or for weighing the answers).

The questions used in the PUE Banking Survey, as outlined in Table 2.2, are not considered in Chapter 2.3.

## 2.3 General Indicators

### 2.3.1 Output

#### Income

The operating income is the remuneration of the services produced and explicitly or implicitly charged. The development of the operating income is the indicator which is useful to measure the development of the value of the output of the banking firms and firms auxiliary to financial intermediation.

The income of the insurance industry consists of the premium and the investment income. The premium covers much more than the charge for the financial intermediation services provided. In Non-Life insurance, an important part of the premium is allocated to pay the

expenses for claims. In Life-Insurance most of the premium is allocated to savings and is invested by the insurance company. Besides the development of the premium, the measurement of the output further needs the development of claims, the development of investment income and for life-insurance additionally the development of technical reserves. This method for measuring output in the insurance industry is not appropriate for a harmonised survey. As a simplification the development of the operating income, consisting of premium income and investment income, might be used as a single indicator of the development of the value of output. Alternatively the concept of value added may be directly applied from the point of view of the factor income. Accordingly value added can be obtained from the development of total expenses for employment and of profits. However this methodology has not been used in business surveys so far.

In the surveys currently conducted in the financial sector, the income is captured by the following type of question:

- In the KOF Banking Business Survey, the development of different income categories a) net interest income, b) net commission and services income, c) net trading income and d) other operating income are asked separately and as d) the total operating income (gross operating income).
- The LZB/ifo Financial Survey (for credit institutions) asks about the expected development of the income situation in a) the interest-dependent business, b) the commission-dependent business and c) financial trading on own account.
- The CBI/PWC FSS asks about the development of a) the value of fee, commission or premium income and b) the value of net interest, investment or trading income.
- The Insurance Surveys of KOF and ifo ask about the development of the premium and of the net investment income.

The wording of the KOF Banking Survey is adapted to the corresponding items of the profit and loss accounts according to Swiss accounting standards. This includes a breakdown to the core business areas: a) interest transactions, b) commission and service transactions and c) commercial transactions. This is adequate for the use and interpretation in Switzerland but it cannot be used in an identically manner in other countries. The LZB/ifo Financial Survey uses a more general wording for the development of the profitability situation in the core business areas. The CBI/PwC survey uses a very general wording, capturing the development of income in all sectors covered by the survey. However it is not possible to differentiate between the core business areas. Interest transactions are rather different to trading transactions. This might be difficult for the interpretation of the results.

In the Banking sector the income is part of the profit and loss account. In Insurance this is the case for the premium and the net investment income. The frequency of these accounts is mainly yearly or quarterly. New information on the level and quantitative growth rate are thus available at the most on a quarterly basis. Therefore the income is not a suitable indicator on a monthly basis. The information on output in the national accounts is on a quarterly basis. For a harmonised questionnaire the number of indicators has to be small. This does not allow questions about different income categories as in the surveys of KOF, LZB/ifo and CBI/PwC but for total operating income only.



## **Demand**

Due to the immaterial character of the output in the service industry, the services produced may not be stored and therefore indicators concerning inventories are by definition not part of the EU service survey. The service rendered has to be produced when it is demanded. Demand for and production of services coincide. Therefore the information content of the development of demand in the service industry is similar to the information content of the development of production in industry. In the following, the formulation “production” will be referenced by the formulation “output”, which is more often – but not exclusively – used in the service industry. None of the analysed surveys currently conducted in the financial sector uses a general formulation for the development of demand. Alternatively the output, either measured by the volume of business, the volume of services or the income is often used. In Table 2.2, these alternatives, except “income”, are however assigned to the term “demand”.

The CBI uses the “volume of business” as an indicator of the output in the financial sector. The NZIER uses the formulation “volume of services”. The CBI analysed the responding behaviour of their survey participants concerning the volume of business (Hoshea, 1992). There are different measures used for indicating the volume of business. 62% of the respondents to this special survey answered that they use the value of income received as the most important measure for their volume of business. 18% of the respondents use the number of transactions as the most important measure. However the calculation of the number and especially of the value of transactions undertaken may be difficult or even impossible. The CBI checked whether the volume of business and the volume of income are correlated. This would be expected, because the volume of income was identified as the main determinant for the development of the volume of business. Surprisingly the variables were not correlated. The CBI concludes that this results from the use of different measures for assessing the volume of output. From our experience with the KOF Banking Business Survey, we can say that profitability is an additional and important factor for the assessment of the business situation and must not necessarily be highly correlated with income.

We conclude that the question on the development of demand is useful in a harmonised business survey in the financial sector. Again the monthly frequency is necessary for comparison with other sectors.

The question about the development of income is also recommended for use in a harmonised survey. The question should be requested on a quarterly basis, since the availability of information is not good enough on a monthly basis.

### **2.3.2 Input**

#### **Costs**

The operating costs are the value of the different input used to produce the services. In national accounts, input provided by the own firm is part of the value added but input provided by other economic agents are intermediate consumption. The development of the operating costs – differentiated between personnel and other expenses – is together with the development of the operating income a useful indicator for the development of value added.

In the surveys currently conducted in the financial sector, the operating costs are captured in the following type of question:

- The KOF Banking Survey asks about the development of personnel and other operating expenses. To capture the development of value added, the expenses are

asked as a ratio of expenses to gross operating income. A higher ratio of “other operating expenses” to gross operating income indicates a higher use of intermediate input relative to total operating income and therefore a negative pressure on the development of value added.

- The CBI/PwC FSS asks about the development of a) total operating costs, b) the staff costs as a proportion of total costs and c) the average costs per transaction.
- The KOF Insurance Survey asks, instead of the development of costs, about the development of the expense ratio, which is a widely used indicator for the share of total costs to premium in the insurance sector.

In the banking and insurance sector, the operating costs are part of the profit and loss account. New information on the level and on the growth rates are thus available at the most on a quarterly basis from many enterprises. Therefore the development of operating costs is not a suitable indicator on a monthly basis but a useful combination with the development of income on a quarterly basis.

## **Employment**

The question on the development of employment has a very long tradition in the business surveys in the manufacturing industry. It is easily measured by the number of persons employed. But an increasing part of the labour force – particularly in the service sector – works in part-time jobs. The relation between part-time and full-time jobs is not stable but changes considerably according to the phase of the business cycle. In a boom situation many part-time jobs are created. Starting a slowdown, these jobs are the first to be eliminated. Therefore, the question on employment should not ask about the development of the number of employed but about the full-time adjusted employment.

Unfortunately, the business surveys in the financial sector conducted by CBI/PwC, LZB/ifo and NZIER ask about the numbers employed. Only KOF asks about the development of full-time adjusted employment, which is a complementary specification of the corresponding general formulation in the harmonised EU service survey. The ifo however does not ask this question in their Insurance Survey and the GKI asks about the number of employed persons quantitatively.

The experience from other sectors shows, that employment is a lagging indicator to the business activities. For this reason, an information provided earlier by BTS than by official statistics is not necessary on economic grounds. But for a comparison with other branches of the service sector, the development of the employment should be part of the harmonised business survey in the financial sector with an identical periodicity.

### **2.3.3 Overall Economic Situation**

#### **Business Situation**

##### **a) Assessment of the Business Situation**

The assessment of the business situation is an overall assessment of the economic situation of the firm and may be based on different determinants. According to the results of a special survey conducted by CBI on responding behaviour, 65% of the firms use their own volume of business as the most important determinant of business confidence. This result is especially impressive because the firms explicitly “are asked to compare their optimism in terms of the business situation in their sectors” (Hoshea, 1992). The question on the business situation in the harmonised EU service survey applies the methodology of classical Business Tendency

Surveys in asking about an assessment of the business situation of the respondent's own firm. With this type of question, the respondent's own business volume will become an even more important determinant of business confidence. Another result of the special survey conducted by CBI is, that "fully 41% of respondents give a general indication of their level of optimism – optimistic, neutral or pessimistic – at the time of answering", although they are asked to compare their current business optimism with their assessment three months before. This strongly supports the type of question used in the harmonised EU service survey, where an assessment of the business situation with the answering options "good", "satisfactory" and "bad" is asked.

In the original formulation of this question, published by the EU Commission, the assessment of the "business climate" is requested. However, the use of this formulation has already been well established with two different meanings: Mostly on the American Continent, the formulation is used as a generic term for general conditions and economic environment such as policy, infrastructure, taxes, workforce and education. The other meaning and use is well established in Europe and known in Asia as a composite indicator of the current assessment of the business situation combined with the expected development of the business situation in six months. The formulation "business climate" should be avoided in questionnaires in business surveys. In this study we strictly adhere to the wording "business situation".

In the industry, construction and retail trade survey of ifo, the assessment of the business situation has a long tradition. Together with the expectation of the business situation for the next six months, the well known ifo business climate indicator is created. This is a key indicator of the ifo. The question on the business situation has also been introduced to the insurance survey, conducted since the fourth quarter of 1999. However, the time span is too short for an overall assessment of the quality of this indicator for the insurance industry.

The assessment of the business situation is part of the KOF Banking and Insurance Business Surveys. The experience of one to two years is not enough for an overall assessment of the quality. The present experience is that the question is well accepted by the firms and regularly answered (small item non response). The same experience has been made in the retail trade and the architects and engineers survey.

We conclude that the question on the assessment of the business situation (not the business climate) is useful and should be recommended for use in a harmonised business tendency survey in the financial sector. The monthly frequency is necessary for comparison with other sectors.

## **b) Expected Business Situation**

In the Banking Survey as well as the Insurance Survey of KOF, the expected development of the business in the months following the next quarter is asked. The question is introduced to the survey to cover an overall assessment of the banks of their mid-term business expectations. Whether the time series of the responses to this question provide a lead to other series of the banking survey could not be checked so far, because the time series are still too short for such an analysis. In the KOF Industry Survey, a similar question does have a lead to the business situation, but the lead is not significantly different to that of other indicators of expectations.

The Insurance Survey of ifo and the Financial Survey of LZB/ifo (Credit institutions) ask about the expected development of business in the next six months (more favourable, stay

the same, less favourable). For a harmonised survey the type of question used by ifo and LZB/ifo is more appropriate, since the surveys by KOF need to differentiate between quarters, which is not the case in the harmonised EU programme.

### **Profitability**

As an extension to the development of the income and the costs, the development of the profitability indicates the net effect of income and costs. In the German-speaking part of Europe, profitability in the financial sector captures the items income, costs and profit. Therefore an assessment of the development of profitability has to be specified by profit in this region.

In the surveys currently conducted in the financial sector, the profitability is captured in the following type of question:

- The KOF Banking Survey asks about the development of the net operating income.
- The CBI/PwC Financial Services Survey asks about the trend in the overall profitability of business.
- In the GKI Banking Survey, the development of the profit from the services (according to the profit and loss statement) and of the interest rate differentials are asked. This question was introduced to the questionnaire in 2000.

The wording of the KOF Banking Survey is adapted to the corresponding items in the profit and loss accounts according to Swiss accounting standards. This is adequate for use and interpretation in Switzerland but cannot be used in an identical manner in other countries. The CBI/PwC Financial Services Survey uses a general wording, covering the development of the overall profitability of business.

In the banking and insurance sector, profitability is part of the profit and loss account. New information on the level and on the growth rates are thus available at the most on a quarterly basis from many enterprises. Therefore profitability is not a suitable indicator on a monthly basis. The quarterly frequency useful for the development of income and costs is recommended also for the development of profitability. If the development of the income and the costs is asked, the profitability may be asked separately to complete the items, but the additional information content is not expected to be large.

### **2.3.4 Capacity**

#### **Technical Capacity**

For financial services, the activity of financial intermediation mainly involves the processing, storing and transmission of information (information intermediation). Technical capacity in information technology (IT) is the most important part of the capital input. Spatial capacity, vehicles and machinery are not as important as the key factor IT.

In the surveys currently conducted in the financial sector, technical capacity is captured in the following type of question:

- The KOF Banking Survey and the LZB/ifo Financial Survey ask about a judgement of the IT capacity, whether it is too high, sufficient or too low. The development of the aggregate responses to this question allow an interpretation for the development of

the present capacity utilisation. An increase in the percentage of the responses “too small” (“too high”), indicates an increase (decrease) in capital utilisation.

- The CBI/PwC Financial Services Survey asks about the expected capital expenditure in the next 12 months for vehicles, plant and machinery and for information technology. The question of the CBI/PwC survey is designed similar to investment surveys. Accordingly the question of the change in investment is followed by a question about the main reasons for the capital expenditure.

Capacity does not change rapidly and therefore a judgement of the IT capacity is not suitable on a monthly basis. However the type of question used by KOF and LZB/ifo is useful on a quarterly basis. This should be a question of choice for institutes conducting the survey, but not a standard question in the harmonised survey.

### **Personnel Capacity**

In the surveys currently conducted in the financial sector, personnel capacity is captured in the following type of question:

- The institutions requesting an assessment of the technical capacity – KOF and LZB/ifo – also ask about an assessment of personnel capacity.

A further indicator about the topic of employment, besides the development of employment, is not recommended to use in a harmonised service survey.

### **2.3.5 Other General Indicators**

#### **Competitive Position**

The competitive position may differentiate between competition within different services or competition between domestic firms and foreign firms.

In the surveys currently conducted in the financial sector, the competitive position is captured in the following type of question:

- In the KOF Banking Survey, the change in the competitive position is asked with regard to three different services: credit transactions, customer funds transactions and asset management. It enables the analysis of the change in the competitive position of different banking groups, but is not a useful indicator in the aggregate, because it would be a zero-sum game.
- The CBI/PwC FSS asks about the change in competitiveness of the UK-based operations in relation to competitors based overseas (other European competitors, competitors outside Europe).
- The GKI Banking Survey asks about the development of the market share in a year to year comparison. Recently, the GKI introduced a new question to the banking survey, asking about the half-year to half-year movement in the business position of the responding bank.

The competitive position is not changing rapidly. Therefore a monthly basis is inadequate for this item. The development of the competitive position or specifically of the market share are not useful for a harmonised survey, since the results are not appropriate in the aggregate. Differentiation necessary for an assessment of the competitive position in relation to foreign competitors on the domestic market (CBI/PwC Financial Services Survey) or of the competitive position of the firm on the foreign market (harmonised EU industry survey) is in

both cases very difficult. The introduction of a question on the competitive position is not recommended for a harmonised EU service survey in the financial sector.

### **Prices**

The development of the price of services explicitly charged is measured by the development of the charges (fees, rates, margins/spreads). The development of the price for services implicitly charged is measured by the development of the interest margin.

In the surveys currently conducted in the financial sector, prices are captured in the following type of question:

- The Banking Survey of KOF and the Financial Survey of LZB/ifo (Credit institutions) ask about the expected development of the interest margin and of the commission rates.
- The ifo Insurance Survey asks about the direction of the adjustment of premium rates. The assessment is asked with respect to the market situation and not with respect to the situation of the responding firm, and therefore does not fit within the classical type of questions in BTS.
- The KOF Insurance Survey asks about the development of the premium rate/tariff.
- The CBI/PwC FSS asks about the trends in the average spreads and in the average commissions, fees or premiums.

With the exception of interest margins, prices for services in the financial sector do not change rapidly. It is not necessary to ask about past development in the interest margin in a business survey since it is well recorded in market interest rates. However, an assessment by the responding firm of their expected interest margin may be useful in a more extensive questionnaire, but not for a harmonised survey. This applies to the development of commission rates, fees and premiums too, which often are fixed for a rather long period and therefore have a small information content on a monthly or even quarterly basis. The variance in the results of the respective question in the KOF Banking and Insurance Surveys is smaller than for questions such as business situation or income.

### **Limits of Business**

The question on limits of business was traditionally included in the harmonised EU industry survey (limits to production). The question was introduced in questionnaires to other sectors for conducting harmonised business surveys in European transition countries (OECD (1997)), and in countries in Asia (OECD (2000)).

The only business survey currently conducted in the financial sector covering questions on the limits of business is the CBI/PwC Financial Services Survey. The Survey asks about factors which are likely to limit the ability to increase the level of business over the next 12 months. The responding firm may choose from eight factors specified by CBI or indicate a factor of their own. The factors specified are:

- 
- a) Level of Demand
  - b) Availability of professional staff
  - c) Availability of clerical staff
  - d) Adequacy of systems capacity
  - e) Ability to raise funds
  - f) Competition – Domestic
  - g) Competition – Overseas
  - h) Statutory legislation
- 

Questions b) to e) ask about limits due to capacity restrictions. The time horizon used by CBI clearly says that this is not a question useful for a high frequency. There is almost no experience with limits of business in the service sector and the issue is subject to further research.

### 2.3.6 General Indicators Not Used in the Financial Sector

To extend our analysis, we look to other surveys, not only in the service sector but also in the manufacturing industry and in construction. There are indeed some questions of interest within these surveys which could probably be adopted to the financial sector.

- *Services for persons living outside the country:* The harmonised EU industry survey includes a question about the expected export development of a firm. Exports in the service sector are realised by providing a service to a foreigner. If there is a need of additional information for the National Account, this question will give a hint about the development of the exports of services from the financial sector. It could be difficult for a bank to identify the development of demand by foreigners, but initial experience in Switzerland shows promising results.
- *Level of capacity utilisation:* The non-qualitative question with the highest attention in public is the degree of technical capacity utilisation. Obviously, this question would be of great interest for the financial services too. But as in other branches of the service sector, there is no clearly defined connection between the production of services and the technical equipment. For this reason, firms are not able to assess the average use of the technical capacity.
- *Delays in payments:* Firms with liquidity problems delay the payments of bills. If firms face increasing payment delays by their customers, their liquidity gets strained too. Such a chain reaction can jeopardise the existence of a firm. From a macroeconomic view, the development of the delay of payments is a good indicator for business cycles.  
Such a question is part of the KOF Wholesale Trade Survey. In relation to the business activity of this branch, the balance of the changes of the delay in payments have the character of a lagging or coincident indicator. For an early warning system this question does not have first priority, so we would not advise using it for the survey in the financial sector.
- *Risks:* The questionnaire of GKI includes an open question on credit risks. The formulation could be changed into a choice list. The respondent will have to choose one or more items out of the list of branches. It is a branch-specific question. But in contrast to others questions of this type, it would make a link to other branches and thus offers a control of the BTS-results in these other branches. Because of the special type of question, we cannot recommend it for a harmonised EU survey, but it still could be of interest for a survey conducting institution.

## 2.4 Branch-Specific Indicators

### 2.4.1 Banking

#### Loans

The development of the loans is an interesting indicator, because on the one hand it is an indicator for a specific activity of the banking firm. On the other hand the development of loans is closely watched by economic agents, because loans are used by clients to finance investment or consumer expenditure and therefore economic growth is sensitive to the development of loans, especially on loans to enterprises. For the past, the statistics on loans, usually published by the Central Bank, are very informative and therefore the past development of loans is not a useful indicator to add in business surveys.

- The Surveys of KOF, LZB/ifo and GKI ask however about the expected development of loans given to specific groups of clients.

This is the only information, which captures the estimation of the banks of their credit development.

#### Non-Performing Loans

The ability to pay the interest on loans is dependent on the economic situation of the borrower. Therefore the development in the volume of non-performing loans is subject to changes along the business cycle. It provides cyclical information.

- As a qualitative question the GKI asks about the expected development of the volume of non-qualified and qualified loans (performing and non-performing loans) given a) to all enterprises and b) to small enterprises only. This question covers the expectation on loans, but additionally also an assessment of the expected development of the borrower quality/credit rating of enterprises.
- The CBI/PwC survey asks about the development of the value of non performing loans for the past and the next three months.

The unique character of the information content makes the two indicators on loans very attractive for a business survey in the banking sector. For a harmonised survey, however, the information content is too specific and mostly about other economic sectors and not about the financial sector.

#### Credit Rating

Closely related to the development of non-performing loans – but in a different wording – is the development of the borrower quality (credit rating). This is an indicator for the development of the banks credit portfolio quality.

- The KOF Banking Survey asks about the development of the borrower quality (credit rating) over the last few months, differentiated according to specific groups of clients. Besides supplying information on the banks' credit portfolio quality, this type of question also serves as an indicator for the credit rating of different client groups.
- In the Financial Survey of LZB/ifo, the expected development of the borrower quality in the next six months is asked.

The banks participating in the survey of KOF are interested in the results to this question because they get information otherwise not available on the assessment of the credit rating



in their own and in other banking groups. Nevertheless, because of the special character of this question, it is not useful for a harmonised survey.

### **Refinancing Situation**

The ability to raise funds is a main determinant for generating new loans.

- In the KOF Banking Survey, this topic is asked about the past development of possibilities for refinancing by a) clients funds and b) other funds (including Interbank loans).
- In the LZB/ifo Financial Survey, the development of the refinancing situation is asked, but in terms of expectations for the next six months.

This question is again too specific for a harmonised survey. Consequently, no branch-specific question with respect to the banking sector is recommended to enter a harmonised survey.

## **2.4.2 Insurance**

### **Insurance Claims**

The development of the insurance claims is necessary for measuring the insurance sector's output and value added. Therefore it is a corresponding element to the development of the income of insurance companies (premium and investment income) (see 2.3.1 "Output").

- In the CBI/PwC Financial Services Survey, the development of the value of insurance claims is asked, but for non-life insurance companies only. The KOF Insurance Survey asks about the development of claims both for life and for non-life insurance.
- In the Insurance Surveys of ifo and of KOF the development of the claims for non-life insurance is asked as a share of the premium, the so called loss ratio. This measures the percentage of the premium paid in benefits to the insured.

### **Technical Reserves**

For life insurance not only the development of the insurance claims is a corresponding element to the development of the income (premium and investment income) but also the development of the technical reserves. An important part of the premium is allocated to savings, managed by the insurance enterprise but considered to be assets of the insured person and not income or assets of the insurer. For life insurance the technical reserves are a necessary variable for the measurement of output and value added.

- Life insurers are asked about the development of the technical reserves only in the KOF Insurance Survey.

Although necessary for output measurement, the question might be included in a insurance survey but the topics of insurance claims and technical reserves are not recommended to enter the harmonised questionnaire. These are specific indicators exclusively for Non-Life or Life Insurance and information content is especially for technical reserves closely connected to the development of the premium income. Therefore the gain in information content is not high enough to justify a separate indicator in a harmonised survey.

### **Value of New Business**

While the premium income considers the total business of the insurance enterprise, the value of new business counts only the premium of new insurance contracts. This indicator asks about the development of the change and not of the level of the business. This type of question is characterized by the cyclical concept of acceleration/deceleration. The development of the new business may also be used as an indicator of costs, because a large part of the expenses result from the settlement of the contract.

- The development of the value of new business is asked in the ifo Insurance Survey and the CBI/PwC FSS. The question of the CBI/PwC survey is restricted to life insurance only.

The value of new business is not suitable for a harmonised questionnaire, because on the one hand it is the only question which explicitly asks about the change in the growth rate, according to the acceleration/deceleration-concept. On the other hand the information on costs is better asked directly than indirectly.

### **Insurance Contracts**

The number of insurance contracts and the number of insured persons are countable variables in the insurance sector. Since one insured can have several contracts, the number of insurance contracts is closer to the volume of business than the number of insured. It is a real indicator, which is not influenced by inflation. On the other hand, there is no clear connection between the number of contracts and the output and value added of the insurer, since the output associated to one contract may differ strongly.

- In addition to the output-oriented questions – premium and costs – the number of contracts is also asked in the KOF Insurance Survey.

This question offers an interesting feature in a survey with many detailed questions, but it is not recommended for a harmonised survey.

### **Surrendered or Lapsed Insurance Contracts**

Expired contracts due to surrender or due to non-payment of the premium give first of all information on the quality of the services of the insurer. Additionally the non-payment of the premium might also provide cyclical information due to the possible cyclical characteristic of the solvency of the persons insured.

In business surveys currently conducted there exist two different viewpoints on questions about this item:

- The first viewpoint is to look directly at the development of the value of surrendered or lapsed contracts. This type of question is used in the CBI/PwC Financial Services Survey, but restricted to life insurance and contracts of less than two years duration.
- The second viewpoint, the indirect view, is to look at the development of the reciprocal of the cancellation rate. This type of question is used in the ifo Insurance Survey.

The information content – quality of services and solvency of the insured – is more about the economic situation of the clients, than about the economic situation of the responding enterprise and therefore not recommended for a harmonised survey.

### 2.4.3 Other Financial Intermediaries

There are only two business surveys, which are conducted specifically for other financial intermediaries than banks and insurance enterprises. The CBI/PwC Financial Services Survey is conducted – besides banking and insurance – in six sub-sectors of the financial sector: finance houses, building societies, securities trading, insurance brokers, fund management and private equity. For a qualitative survey, the number of respondents is however too small for results from the sub-sector private equity.

In the survey of CBI/PwC there is not a single question asked specifically about other financial intermediaries except banks and insurance. The only branch specific questions are asked about insurance companies. All other questions are asked about every sector.

The second survey conducted for other financial intermediaries is the business survey in the Bavarian financial sector, conducted by LZB/ifo. The special questions are mostly branch-specific formulations for the variable, which is the commonly used indicator of the volume of business, i.e. questions on the trend of specific items of volume. Since these sectors deal with funds management, it is the volume of the funds, either managed as own- or as fiduciary-equity. A single question asks about the development of income.

We refer to the branches and their specific question(s):

#### *Financial Services Institutions*

- Development of the commission rates and of the commission income compared to the previous quarter (increase, not change, decrease).

#### *Mutual Funds*

- Development of the number of firms in the investment portfolio in the last twelve months (increase, not change, decrease).
- Development of the average investment in the investment portfolio in the last twelve months (increase, not change, decrease).
- Development of total investment in the last three months and expectation for the next six months (increase, not change, decrease).

#### *Venture Capital Funds*

- Development of the volume of funds in the last three months and expectation for the next six months (increase, not change, decrease)
- Change compared to the previous quarter for the extra charges on issues and for management fees.

## 2.5 Summary and Conclusions

The discussion of questions and surveys currently conducted in the financial sector revealed insight into the information content and applicability of indicators to use in business surveys in the financial sector.

We conclude that the question about the development of demand and about the development of employment are suitable for a harmonised business survey in the financial

sector. The monthly frequency is appropriate for both indicators and necessary for comparison with other sectors.

There are – besides demand and employment – better indicators available to record information about output or input. A adequate indicator to measure output is the development of operating income. The development of operating costs is recommended to measure input. However, availability of these indicators is not guaranteed on a monthly basis and the use of a quarterly basis is the adequate periodicity.

The assessment of the business situation does not give any difficulties to respond to. This question is also applicable to the financial sector. Again the monthly basis is requested for harmonisation purposes.

Several interesting branch-specific indicators were discussed and some are recommendable to use in a business survey in the respective branch. Especially the expected development of non-performing loans and the expected development of loans in the banking sector may provide information otherwise not collectable.

With regard to the harmonised EU service survey in the financial sector there is no branch-specific indicator which is necessary and recommended to use in a harmonised survey.

### **3 Analysis of Data from the CBI/PwC Financial Services Survey<sup>2</sup>**

As shown in Chapter 2.2, there are only a few institutions already conducting BTS in the financial sector. The overview of the indicators revealed a differentiated set of questions used in these surveys. At this stage, the discussion of the information content of specific questions was limited to theoretical arguments and the experience gained with the surveys.

The aim of this Chapter and the appurtenant Appendix 2 is to gain insight into the information content of the indicators from an empirical analysis of survey data. Most of the surveys in the financial sector started only recently. Therefore, an analysis of the collected data will be very limited. Only the CBI disposes of a broad set of indicators comparable to the type of questions of the harmonised EU surveys and which go back for several years. The following analysis is carried out with data kindly provided by CBI out of their CBI/PwC Financial Services Survey.

The analysis investigates the lead/lag structure as well as similarities and differences in the indicators within the aggregate qualitative survey data of the overall UK financial sector. Due to time limits, a comparison of the time series with respect to (an) adequate reference time series has not been explored and is left for further research.

#### **3.1 Data Set**

For the analysis of the response structure across all the subdivisions of financial institutions participating in the CBI/PwC FSS, we refer to the whole temporal range from 1989:Q4 to 2001:Q4, which amounts to 49 observations per series. Following the standard approach in business survey research, all responses are quantified by computing balances between "+" and "-" shares.

According to the questionnaire the data are grouped into blocks, one block for each question numbered (1., 2., ...). The analysis only covers questions on topics covered by "standard" business surveys. Question 7 on marketing expenditure and questions 8-10 on investment topics are therefore not considered. The following analyses are restricted to blocks 1–6 and 11. Since within these blocks questions 3D as well as 5F and 5G refer to insurance companies only, they are not considered in the overall analyses. Within blocks 3–6, each item is split in pairs into developments in the past and in the future. The items within block 11 are split in pairs into assessments of conditions referring to total business and business with overseas customers respectively.

Consequently, this step of analysis draws on 53 series (Table 3.1).

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<sup>2</sup> We gratefully thank Michael Graff for the data analysis and his substantial contribution to the interpretation.

**Table 3.1 Series for analysis of overall financial sector**

Question No.	Topic/Item	
O_1	Business situation, optimism	
O_2A	Level of business with domestic customers, assessment	
O_2B	Level of business with overseas customers, assessment	
O_3A_P	O_3A_F	Volume of Business
O_3B_P	O_3B_F	Value of fee, commission or premium income
O_3C_P	O_3C_F	Value of net interest, investment or trading income
O_4A_P	O_4A_F	Volume of Business, Industrial & commercial companies
O_4B_P	O_4B_F	Volume of Business, Financial institutions
O_4C_P	O_4C_F	Volume of Business, Private individuals
O_4D_P	O_4D_F	Volume of Business, Overseas customers (UK-based operations)
O_5A_P	O_5A_F	Average spreads
O_5B_P	O_5B_F	Average commissions/fees/premiums
O_5C_P	O_5C_F	Total operating costs (excluding cost of funds)
O_5D_P	O_5D_F	Average operating costs per transaction
O_5E_P	O_5E_F	Value of non-performing loans
O_5H_P	O_5H_F	Overall profitability of business
O_6A_P	O_6A_F	Numbers employed
O_6B_P	O_6B_F	Training expenditure
O_6C_P	O_6C_F	Staff costs as a proportion of total costs
O_11A_T	O_11A_O	Limits of Business, Level of demand
O_11B_T	O_11B_O	Limits of Business, Availability of professional staff
O_11C_T	O_11C_O	Limits of Business, Availability of clerical staff
O_11D_T	O_11D_O	Limits of Business, Adequacy of systems capacity
O_11E_T	O_11E_O	Limits of Business, Ability to raise funds
O_11F_T	O_11F_O	Limits of Business, Competition - Domestic
O_11G_T	O_11G_O	Limits of Business, Competition - Overseas
O_11H_T	O_11H_O	Limits of Business, Statutory legislation
O_11I_T	O_11I_O	Limits of Business, Other
_P		Past related
	_F	Future related
_T		Total
	_O	Overseas

**Missing Values**

The data corpus is nearly complete; the only missing values are the first 11 quarters in series 5E (past and present). Since the statistical procedures to be conducted within this corpus require complete data, there were 3 options how to deal with this problem:

- to drop the first 11 observations altogether,
- to drop the two series with missing values from the analysis,
- to remove the missing values by suitable estimates.

Since option a) would imply a substantial loss of more than 20% of the original information in the data, and option b) would result in a total neglect of item 5E (value of non-performing loans), which certainly is dealing with an important issue, a suitable method for estimation of the missing values had to be chosen.

With respect to the aim of the following empirical analyses, i.e. the identification of structural interrelations, special care had to be taken not to introduce artificial correlation into the data set. Therefore, we could not use the replacement procedure which is a priori likely to result in the 'best' estimates (i.e. the ones closest to the values one might expect, given the information at hand), namely to regress the incomplete series on other – complete – series within the same corpus. Moreover, since autoregressive modelling is never quite free from arbitrary choices, we deliberately restrict ourselves to basic information within the series without regard to the time-dimension and replace the missing values by the series' mean values (-20.6 and -19.7).

### 3.2 Cross Correlations

This step of analysis examines whether the temporal interrelations of the series are congruent with the time reference of the underlying questions.

To this end, all items of the 7 blocks of questions considered here are grouped according to their temporal dimension as either present, past or future oriented.

This procedure results in

- 3 unpaired series, which refer to assessments of present or future conditions (1, 2A, 2B),
- 16 pairs of series, which refer to either past or future,
- 18 unpaired series, which refer to future conditions only.

Since the time horizon (if any) of the questions asked always covers exactly one quarter of a year (either the next three months or the past three months), it is straightforward to formulate the time structure which should be expected, if the respondents had reliable information on past and present business conditions as well as on what will happen in the three months following the filling of the questionnaire:

Questions which refer to the same empirical facts should have their maximum correlation (in absolute terms) with the following lag-lead structure:

Series 2	Series 1	Lead/Lag
past conditions	past conditions	contemporaneous
present conditions	present conditions	contemporaneous
future conditions	future conditions	contemporaneous
past conditions	present conditions	0 to 1 quarter lead
present conditions	future conditions	0 to 1 quarter lead
past conditions	future conditions	1 quarter lead

The survey is conducted close to the end of a quarter. Concerning the past conditions the answering time is almost at the end of the (past) period, while for the future conditions it is some days before the beginning of the (future) period. Three months later the conditions previously assessed as future conditions are then assessed as past conditions. Therefore the lead of the future conditions is expected to be one quarter.

Obviously, the items with paired questions (3A-6C) have the same empirical reference, so that the closest relation between past and future reference series is to be expected within these 16 pairs. Specifically, the more the respondents know (and reveal) about the true business referred to, the more pronounced should be the finding of an (absolute) maximum correlation with a lead-lag of 1 quarter.

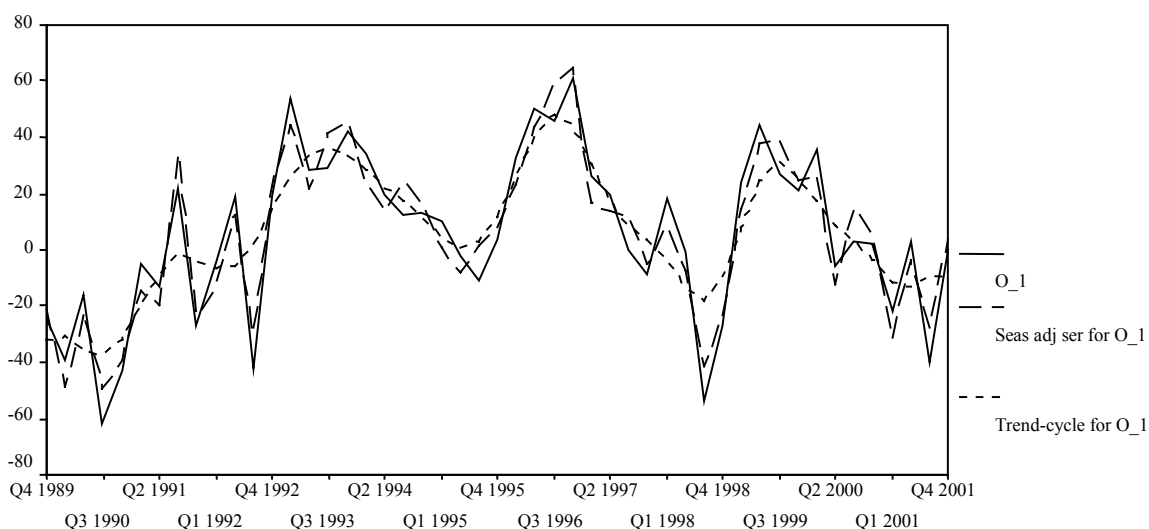
To explore whether this is indeed so, an appropriate statistical tool is the cross correlogramme which visualises the lead-lag-structure of a pair of series.

Before proceeding to the results, however, it is in order to consider the time series properties of the analysed series. While it is obvious that the balance series are stationary by

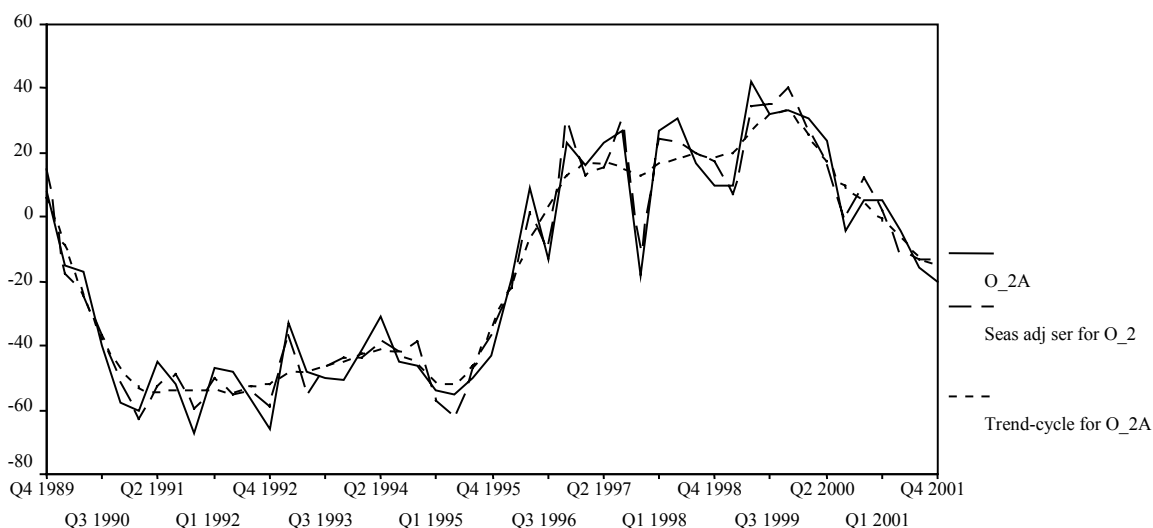
construction, some doubts are reasonably justified as far as seasonality is concerned. Though the respondents are encouraged to abstract from seasonal factors, this informal de-seasonalising may be far from adequate. Moreover, since survey data are known to be affected by a considerable amount of noise, structural relations may become more apparent when the noise component is filtered from the series.

Two examples of the effects of the removal of seasonal factors (resulting series: seasonally adjusted) and in addition of all presumably stochastic elements (resulting series: trend-cycle) from the original series (O\_1 and O\_2A) are plotted in the Figures below.

**Figure 3.2A Business situation**



**Figure 3.2B Level of business**



As can be seen from these examples (none of the other 51 series differs substantially from the two displayed here), after the informal de-seasonalising done by the respondents, some seasonality still remains. More obviously, the trend cycle series suggest that the original series are indeed affected by a considerable amount of noise. Accordingly, the interrelation



between series might come out clearer, since, firstly, rigorous de-seasonalising of the original series will remove any correlation which merely stems from the same seasonal pattern, and, secondly, any underlying correlation which is due to reference of different series to the same empirical phenomenon might be undetectable in the original, noise-affected series.

Consequently, in what follows we shall alternatively look at pairs of original, de-seasonalised and trend-cycle series (in which the seasonal factors as well as noise have been removed). The results are presented in Table 3.2 which shows the lags -2, -1 and 0 from cross correlogrammes for series O\_3A\_P with O\_3A\_F to series O\_6C\_P with O\_6C\_F. For each pair, the first set of columns refers to the original balance series, the second to the de-seasonalised series (additive seasonal factors subtracted), and the third to the trend-cycle series. The maximum correlations are marked with bold values and the italic values do differ less than 10% from the maximum.

**Table 3.2** Cross correlations of past and future series

Series	original			de-seasonalised			trend-cycle			
	-2	-1	0	-2	-1	0	-2	-1	0	
<i>Volume of business, overall</i>										
O_3A	Volume of business	0.481	<i>0.580</i>	<b>0.602</b>	0.524	<i>0.599</i>	<b>0.611</b>	0.720	<b>0.743</b>	<i>0.697</i>
O_3B	Value of fee, commission or premium income	0.098	0.421	<b>0.593</b>	0.097	0.481	<b>0.625</b>	0.261	0.537	<b>0.697</b>
O_3C	Value of net interest, investment or trading income	0.057	0.316	<b>0.534</b>	0.056	0.337	<b>0.538</b>	0.252	0.480	<b>0.663</b>
<i>Volume of business, customer categories</i>										
O_4A	Industrial & commercial companies	0.541	<i>0.615</i>	<b>0.645</b>	0.543	<b>0.677</b>	<i>0.638</i>	<i>0.801</i>	<b>0.804</b>	<i>0.754</i>
O_4B	Financial institutions	0.256	0.339	<b>0.699</b>	0.301	0.343	<b>0.694</b>	0.513	0.661	<b>0.745</b>
O_4C	Private individuals	0.548	0.524	<b>0.734</b>	0.550	0.527	<b>0.761</b>	0.751	<i>0.824</i>	<b>0.852</b>
O_4D	Overseas customers (UK-based operations)	0.081	0.371	<b>0.742</b>	0.090	0.389	<b>0.764</b>	0.467	0.699	<b>0.847</b>
<i>Charges, costs and profitability</i>										
O_5A	Average spreads	0.287	<b>0.442</b>	0.351	0.290	<b>0.442</b>	0.356	<b>0.731</b>	0.724	0.661
O_5B	Average commissions/fees/premiums	0.319	0.385	<b>0.663</b>	0.313	0.380	<b>0.699</b>	0.483	0.692	<b>0.821</b>
O_5C	Total operating costs (excluding cost of funds)	0.408	0.388	<b>0.567</b>	0.385	0.377	<b>0.624</b>	0.579	<i>0.679</i>	<b>0.743</b>
O_5D	Average operating costs per transaction	0.470	0.511	<b>0.847</b>	0.472	0.521	<b>0.847</b>	0.606	0.810	<b>0.945</b>
O_5E	Value of non-performing loans	0.681	0.811	<b>0.907</b>	0.696	<i>0.821</i>	<b>0.909</b>	0.843	<i>0.925</i>	<b>0.946</b>
O_5H	Overall profitability of business	0.542	<b>0.714</b>	<i>0.705</i>	0.545	<i>0.716</i>	<b>0.718</b>	<i>0.818</i>	<b>0.892</b>	0.866
<i>Employment and training</i>										
O_6A	Numbers employed	0.723	<b>0.847</b>	<i>0.840</i>	0.735	<b>0.849</b>	<i>0.846</i>	0.847	<i>0.925</i>	<b>0.943</b>
O_6B	Training expenditure	0.420	0.709	<b>0.887</b>	0.434	0.724	<b>0.899</b>	0.593	0.826	<b>0.984</b>
O_6C	Staff costs as a proportion of total costs	0.589	0.645	<b>0.804</b>	0.580	0.632	<b>0.835</b>	0.809	<i>0.884</i>	<b>0.920</b>

**bold-values:** maximum correlation  
*italics*-values: difference to maximum correlation < 10%

An inspection of the results of the 16 pairs of questions reveals that between the original series of corresponding past-future questions the expected lag length of one quarter for maximum correlation is met just in 5 out of 16 questions. What is observed instead is that generally, the highest correlation (in absolute terms) manifests itself if the paired series are correlated without any lag. Only in three cases (O\_5A, O\_5H and O\_6A) do we find a lag for the maximum correlation at all; the past and the future questions on the identical item reveal a one quarter lead-lag structure.

The removal of the remaining seasonality leads to minor changes only: Item O\_5H, which shows a lag of one quarter in the original series now fails to do so, and item O\_4A, which now shows signs of a lag of one quarter which it did not show before. The changes in absolute terms are, however, marginal, and the overall impression from this exercise is that seasonality does not seem to be a major problem within these data.

Finally, the noise-filtering procedure does increase the magnitude of correlation (in absolute terms) for all lags considered, thereby indicating that what was removed from the series is indeed noise rather than information. Compared with the original series, two additional series (O\_3A and O\_4A) reveal a lead-lag structure of one quarter, while series O\_6A now fails to do so. Moreover, series O\_5A now shows a lead-lag of two quarters instead of one.

The cross correlation analysis of the unpaired questions (O\_1, O\_2A, O\_2B) cannot give insight in the temporal consistency of the responses. Therefore, this work would be an interesting feature but goes beyond the scope of this study.

### 3.3 Factor Analysis

To gain more insight into the internal structure of the series, the data will be analysed by factor analysis, a standard tool for data reduction.

The analysis is rather technical, allowing also for a distinction between original and filtered series. A detailed description of the analysis as well as results and interpretation are therefore attached to Appendix 2.

A short description and the main results, however, are given in this Chapter.

Two sub-groups of the 53 series are analysed. The grouping criterion is whether the series is past or future related.

Within the past related group, three underlying dimensions that dominate 70-80% of the overall variance in the data are identified, capturing information on output, input and risks. The series are mainly associated to one component only, allowing for an identification and selection of the series according to the information content.

Within the future related group, four underlying dimensions that dominate 70 to over 80% of the overall variance in the data are identified. Three dimensions are labelled according to the analysis of the past related group of series, that is to say output, input and risk. The additional fourth dimension captures information on limits of business. The series are again mainly associated to one component only.

### 3.4 Summary and Conclusions

With respect to the harmonised EU service survey in the financial sector our empirical analysis leads us to the following conclusions:

#### a) Out of the Cross Correlations

- The financial sector has of only limited information at its disposal with regard to the future development. Most of the paired questions have the maximal correlation in the same period. From the generally worded questions the volume of business has – at least in the trend-cycle version – the expected lead of one quarter with a high correlation.
- The average spread includes a lot of noise; only the trend-cycle produces a significant correlation – with a lead of two quarters which is more than was expected a priori.

- Firms can best anticipate the future development of profitability and of the number employed; the latter is no surprise. But profits rely heavily on cost developments, according to the cross correlation results the firms have a limited ability to anticipate costs.
- Therefore, paired questions on items asked about the future and past development have to be restricted to a minimum.

### b) Out of the Factor Analysis

- Past or future changes in output can be recorded using different questions. The question on the volume of business gets a somewhat clearer picture for the future-related question than more specific questions on commissions, fees or premium income and net interest, investment or trading income. Profitability gives only limited information about past changes but for the future development it is almost a substitute for the question about the volume of business.
- Past or future changes of input are best expressed by the question on staff costs in relation to total costs. In this regard, it is preferred to the question on changes in the number of employees. Total operating costs gets the highest loading only in the question about the future changes.
- The first component of the future related series only includes questions on factors limiting future activities, 13 out of 16 limiting items. The distinction between total and overseas business does not offer much insight. They all are mixed in this first component. Therefore, one or the other of the items of limitation could probably be suppressed.
- There are several specific questions on bank activities. They show a different pattern in past and in future changes and thus would be included in a survey if this detailed information is of interest.

#### **Box A: Outlook for Further Research**

There are several promising paths to extend the empirical analysis of the data.

Take the various principal components computed so far as reference series and investigate the time structure of the series from the questionnaire with respect to these (cross correlations, Granger causality)

Identify a set of economic reference series from outside of this data corpus.

Analyse the predictive power of the data from the survey with respect to economic reference series, either identified within or from outside the survey data; consider individual series and combinations of series (principal components or factors); within this prediction framework, identify lead-lag structures and the turning point properties.

Improve the statistical fit of the principal component analyses by referring not only to balances, but also the "-", "equal" and "+" shares as well as first differences of the series.

Modify the analyses by running factor instead of principal component analyses, thereby allowing for stochastic elements in the data.

## 4 *Pilot study for a Business Survey in the Financial Sector*

Experience with the introduction of new surveys shows that pre-tests are an indispensable instrument to ensure the quality of a survey. In general, pre-tests for a BTS include a broad range of fields such as the topics of questions and their wording, the questionnaire design, the mailing of the questionnaire, the data collection, the calculation process, the aggregation and weighting method and the means of publication of results. An individual pre-test cannot cover this whole range but has to concentrate on one topic (Fink, Kosecoff (1998)), otherwise the results will not be clear.

Given the frequency and administrative rules, the issues specified in the harmonised EU programme are topics and wording of the questions. This will also be true for a harmonised EU service survey in the financial sector. Thus, in the framework of this study we concentrate our pre-test in a pilot study on the selection of topics, the appropriate wording and the frequency.

### 4.1 Study Design

#### 4.1.1 Coverage

The project as a whole covers the total financial sector. In the case of banking and insurance the different institutions already conducting surveys in this field have quite considerable experience. Moreover, the topics covered by the pilot study are mostly included in the currently conducted surveys (see Chapter 2).

Therefore, our pilot study in the financial sector of Switzerland covers the following branches according to NACE Rev. 1, excluding banks and insurance:

---

65.2	Other financial intermediation
65.21	Financial leasing
65.22	Other credit granting
65.23	Other financial intermediation n.e.c.
67	Activities auxiliary to financial intermediation
67.1	Activities auxiliary to financial intermediation, except insurance and pension funding
67.11	Administration of financial markets (only 2 firms in the universe)
67.12	Securities brokerage and fund management
67.13	Activities auxiliary to financial intermediation n.e.c.
67.2	Activities auxiliary to insurance and pension funding

---

#### 4.1.2 Sample Size

The sample size of a pilot study of a BTS in a particular economic sector is determined by the heterogeneity of the firms and their activities in this sector, the size and complexity of the questionnaire and a reasonable cost/benefit ratio.

The NACE Rev. 1 on a 4-digit-level offers fairly homogenous groups of business activities. The sample size therefore has to be determined on this disaggregation level.

The size of the questionnaire to be used for the pilot study can be described as small. The questions are not branch-specific but cover, in some cases, topics with quite a complex definition. Keeping these facts in mind and taking international experience into consideration (Dillman 2000), the sample size should include around hundred firms.

On the 4-digit level (65.21, 65.22, 65.23, 67.11, 67.12, 67.13) we selected 15 firms out of the universe in each branch. On the 3-digit level (67.2) we selected 20 firms. The higher number is legitimised by the hypothesis that the heterogeneity on a 3-digit level is somewhat higher than on a 4-digit level. This sums up to a sample size of 96 firms.

Normally, the size of the firm is an important element for a pilot study. On the one hand, small firms are much less used to responding to surveys, are not so well equipped to reply quickly to the questions and the level of education of the respondent is in general lower. All these reasons are not very relevant with respect to the financial sector. On the other hand, small firms generally operate in other markets or at least in other parts of a market than big firms; this is true for the financial sector too. Knowing that the size of the firms is not as relevant as in other economic sectors, we do not increase the pilot sample size. Instead, we divided the universe according to the size of the firm and checked that the selected firms have an equal distribution through the categories of size.

The universe was divided into the following 9 categories of size:

Category	No. of Employees
1	3 – 4
2	5 – 9
3	10 – 19
4	20 – 49
5	50 – 99
6	100 – 199
7	200 – 249
8	250 – 499
9	> 500

#### 4.1.3 Selection of Topics

In Chapter 2.3 we discussed those indicators which are used in business surveys in the financial sector as well as those of possible interest which are not used and made a pre-selection of questions. For the purpose of our pilot study we concentrate only on those pre-selected indicators which might be difficult to respond to. Difficulties can arise from the indicator itself, from the wording or from the frequency.

Within the whole set of pre-selected indicators we have to distinguish between four economic categories:

#### Output

There are no clear definitions of output of services and this is even more the case for the financial sector. Several items are used in the existing BTS in the branches under discussion: income, volume of business and demand are most commonly used.

Operating income is clearly defined and therefore easy to respond to. But it is probably available only on a quarterly basis. We want to investigate the possibility of a monthly periodicity by means of the pilot study.

As an alternative, we can ask about the development of the volume of business or of demand. These generally worded questions could be responded to on a monthly basis. But firms probably have difficulties to find indications for them. Moreover, we do investigate if and how firms differentiate between these two indicators. For this reason, both are selected for the pilot study.

### **Input**

Here the following topics were pre-selected: employment and operating costs. The question about the development of employment is part of the harmonised EU surveys and its usefulness has been proved. But in the service sector part-time jobs are common. We want to know if firms give their response about the development of employment depending on the number of employees or on full-time adjusted employment.

Operating costs are the corresponding element to the operating income. It is a clearly defined value and therefore easy to respond to. But it is, as operating income, probably available only on a quarterly basis. We want to investigate the possibility of a monthly periodicity.

### **Business Situation**

The assessment of the business situation has been pre-selected. As explained in Chapter 2.3, there are no problematic features of this topic. But we want to investigate if firms are able to respond to this topic in a forward-looking question and if they find this information as significant for their business. Therefore, only the expected development of the business situation is included in the pilot study.

### **Prices**

Taking into consideration that output is very difficult to define, the definition of prices is at least as difficult. There are of course some proxies such as fees, commission rates and interest margins. All institutions conducting a survey in the financial sector ask not for prices but for these proxies. We want to know if the firms in this sector can respond directly to a question considering the development of prices as in most other economic sectors too.

### 4.2 Questionnaire

#### Pilot Survey: Cyclical Development in the Financial Sector

##### Instructions about how to respond

Left-hand column: Please respond to the following questions about your company’s business.  
 Right-hand column: Your assessment and opinion about the questions provides us with information as to the quality of the questions. Please use the field for comments too, especially if you cannot answer a question or if the wording is not clear enough.

##### Questions

( please mark where applicable)

The questions refer your company’s activities in Switzerland.

##### Your Assessment and Opinion about the Question ( please mark where applicable)

How frequently is the corresponding information at the management’s disposal?      How do you assess the importance of the question to your business?

1. Development of **demand** in the recent months:
- up
  - same
  - down

<input type="checkbox"/> monthly	<input type="checkbox"/> significant
<input type="checkbox"/> quarterly	<input type="checkbox"/> insignificant
Comment:	

2. Development of the **volume of business** in the recent months:
- up
  - same
  - down

<input type="checkbox"/> monthly	<input type="checkbox"/> significant
<input type="checkbox"/> quarterly	<input type="checkbox"/> insignificant
Comment:	

<p><b>Re question 1 and 2:</b> Concerning your business, is there a difference between the development of demand and the development of the volume of business?</p> <p><input type="checkbox"/> No, there is no difference</p> <p><input type="checkbox"/> Yes, we see the following difference:</p> <p>.....</p> <p>.....</p>
--

3. Development of **employment** in the recent months:
- up
  - same
  - down

<input type="checkbox"/> monthly	<input type="checkbox"/> significant
<input type="checkbox"/> quarterly	<input type="checkbox"/> insignificant
Comment:	

<p><b>Re question 3:</b> What indicator did you use for the development of employment?</p> <p>We respond according to:</p> <p><input type="checkbox"/> The number of employees</p> <p><input type="checkbox"/> Employment full-time adjusted</p>
--

**Questions (continued)**

( please mark where applicable)

The questions refer your company's activities in Switzerland.

**4. Development of the operating income in the recent months**

- up
- same
- down

**5. Development of the operating costs in the recent months**

- up
- same
- down

**6. Development of our prices in the recent months**

- up
- same
- down

**7. Development of our business situation in the next 6 months**

- up
- same
- down

**Your Assessment and Opinion about the Question** ( please mark where applicable)

How frequently is the corresponding information at the management's disposal?

How do you assess the importance of the question for your business?

<input type="checkbox"/> monthly <input type="checkbox"/> quarterly	<input type="checkbox"/> significant <input type="checkbox"/> insignificant
Comment:	

<input type="checkbox"/> monthly <input type="checkbox"/> quarterly	<input type="checkbox"/> significant <input type="checkbox"/> insignificant
Comment:	

<input type="checkbox"/> monthly <input type="checkbox"/> quarterly	<input type="checkbox"/> significant <input type="checkbox"/> insignificant
Comment:	

<p><b>Re question 6:</b> What is the indicator you use for the development of prices?</p> <p>.....</p> <p>.....</p>
---

<input type="checkbox"/> monthly <input type="checkbox"/> quarterly	<input type="checkbox"/> significant <input type="checkbox"/> insignificant
Comment:	

**Additional questions:**

**A.** In order to answer to one of the above questions 1–7, is it necessary for the management to have a look at the accounts?

- No
- Yes. Which one? .....

**B.** Do you use further indicators, not covered by questions 1-7, which reflect the cyclical development of your business?

- No
- Yes. Which one? .....

Name: ..... Phone: .....



### 4.3 Results

The pilot survey for selected items in the branches “65.2 Other financial intermediation” and “67 Activities auxiliary to financial intermediation” was sent to the selected firms in April 2002. It achieved a response from 34 enterprises which equals a response rate of 35%. The results are shown in Figures 4.3A to 4.3G.

#### Development of Demand and of the Volume of Business

All respondents gave answers on the development of demand and of the volume of business. The balance of 8 for the development of demand is slightly positive, the balance for the volume of business reaches a value of 21. This is already an indication of some differences in the information content of the two questions, which will be discussed further.

Figure 4.3A Demand

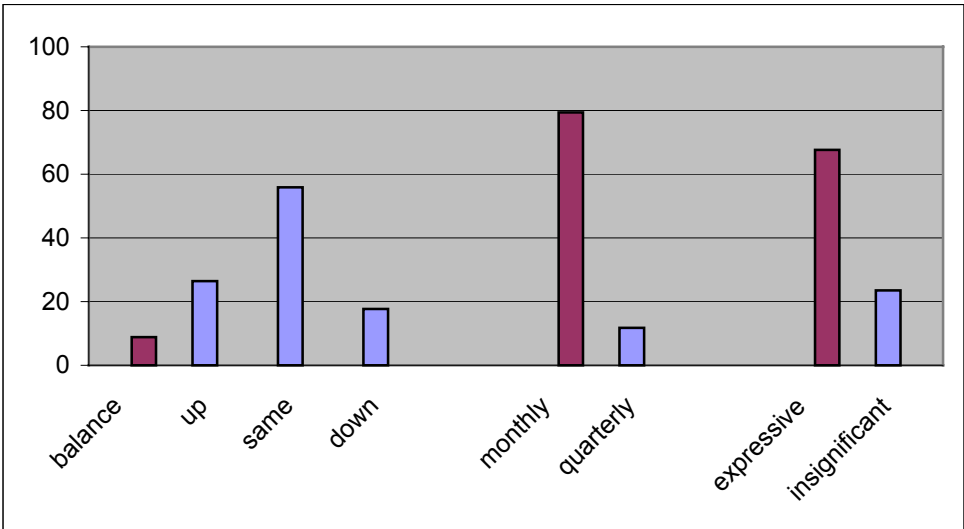
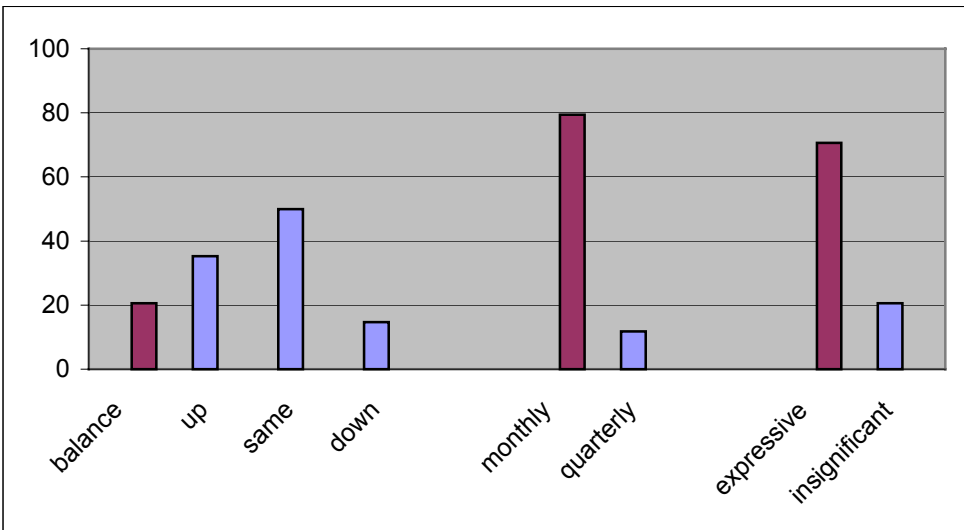


Figure 4.3B Volume of business



79% of the respondents have information at their disposal on both the demand and the volume of business on a monthly basis and 12% on a quarterly basis. In a few comments it was indicated, that the information about demand as well as the volume of business is available weekly or even daily. Both questions are assessed by 68% of the respondents as significant for their business and only by 24% as insignificant. According to the comments, the assessment of insignificance depends on the specific situation of the enterprise and not on the branch.

56% of the respondents replied to the additional question of whether there is a **difference between the development of demand and the development of the volume of business** with „No difference“. However 38% see a difference and 6% did not answer this question. The answers also depend on the branch.

- *„Delay“*: Some respondents belonging to „65.21 Financial leasing“ and „65.22 Other credit granting“ explained that there might be a delay of several months from demand to volume of business. The reason is, that the transaction of credits or leasing (interpreted as the volume of business) is dependent on the date of delivery of the property to be financed. For the interest-dependent business in banking, a similar delay may occur.
- *„Consulting“*: For some respondents belonging to „67.12 Securities brokerage and fund management“, „67.13 Activities auxiliary to financial intermediation n.e.c.“ and „67.2 Activities auxiliary to insurance and pension funding“ demand on the one hand is closely related to the clients and includes consulting services given free of charge for contacts, not leading to a transaction. The volume of business on the other hand is more closely related to the volume of transactions and therefore to income from provisions or commissions.

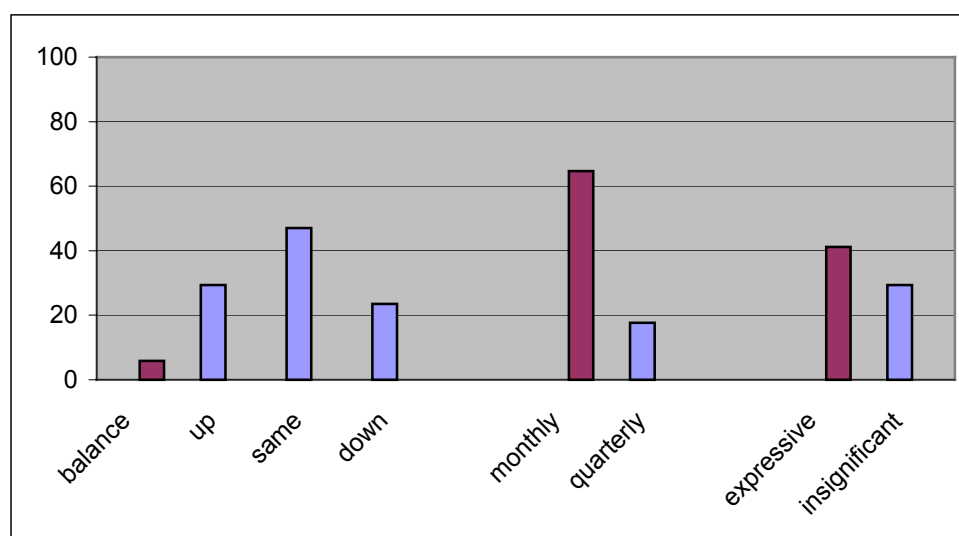
We conclude that for some interest-dependent business demand may have a lead on the volume of business and on the income related to this business and that for some provision-dependent or commission-dependent business demand might better reflect the services provided, whether charged or not, while the volume of business is the better indicator for services charged and therefore for output and value added. Additionally, an enterprise with credit card services explained that the „volume of business better reflects consumer behaviour“.

### **Development of Employment**

The question about the development of employment was also answered by all respondents. The enterprises facing an upward trend are slightly more numerous than those facing a downward trend, resulting in a balance of 6.

65% of the respondents have information on the employment available on a monthly basis and 18% on a quarterly basis. The question is assessed as significant for their business by only 41% of the respondents and as insignificant by 29% (especially in the branches „65.22 Other credit granting“ and „67.12 Securities brokerage and fund management“). Almost 30% did not give an assessment. For some of the respondents the insignificance depends on the small size of their enterprise.

The indicator used for the development of employment is for 56% of the respondents the „number of employees“ and for the remaining 44% the „full-time adjusted employment“. This calls for a more exact wording of the question.

**Figure 4.3C Employment**

According to the results, the development of employment is not closely related to the business of the enterprises. This is not astonishing, since for financial services short-term changes in output are usually handled by the same staff. Furthermore the results may be distorted because employment is assessed by different definitions: the number of employees and the full-time adjusted employment.

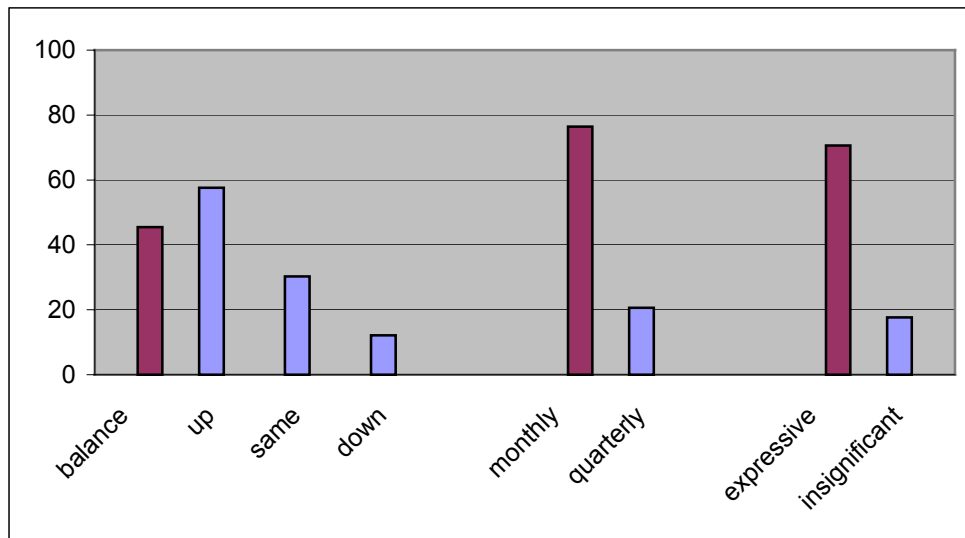
#### **Development of Operating Income and Operating Costs**

The questions about the development of the operating income and of the operating costs were answered by all except one respondent. The balances of 45 and 24 respectively indicate a clear upward trend for operating income and operating costs.

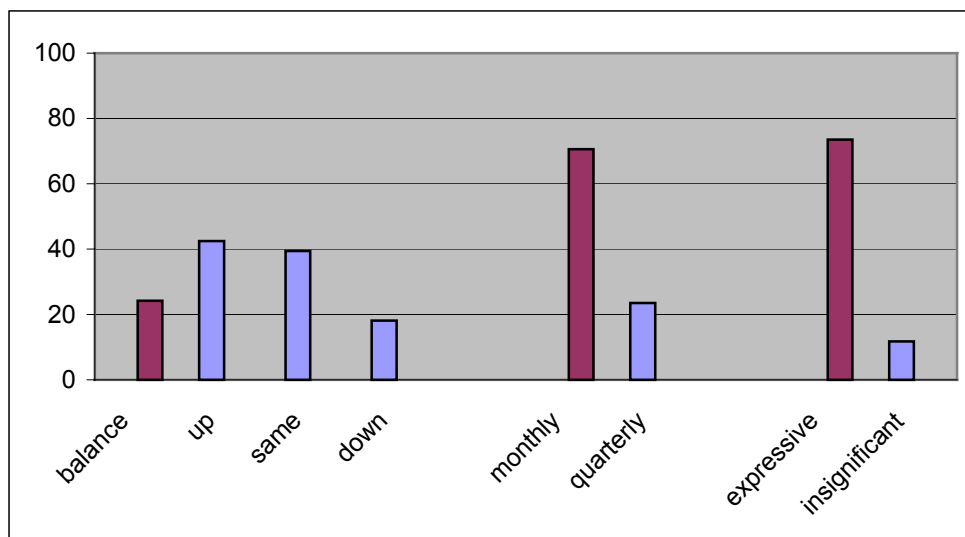
At least 71% of the respondents have information at their disposal on a monthly basis and only 24% or less on a quarterly basis. Almost all enterprises have the respective information available quarterly. Both questions are assessed by at least 71% of the respondents as significant for their business and only 18% or less as insignificant. In addition, if the operating income is assessed as insignificant, the volume of business is also classified in the same way.

We conclude, that the development of operating income and of operating costs achieve the highest share of the assessment „significant for the business“ among the questions asked and that almost all enterprises have the respective information available at least quarterly.

**Figure 4.3D Operating income**



**Figure 4.3E Operating costs**

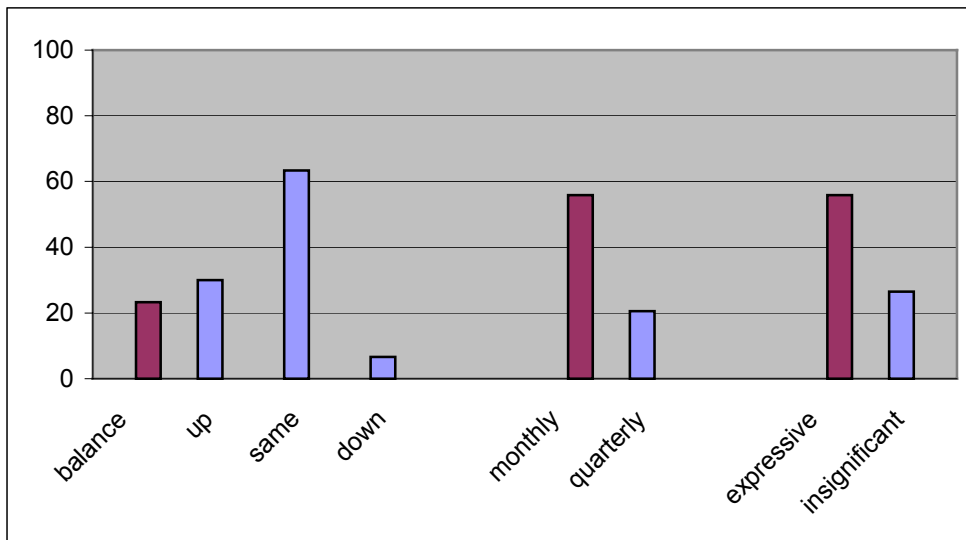


**Development of Prices**

The question about the development of the company’s own prices was answered by 30 out of 34 respondents. The balance of 23 indicates an upward trend, but 63% of the respondents marked “same”.

On a monthly basis 56% and on a quarterly basis 21% of the respondents have information on prices available. Again 56% assess the question as significant for their business, 26% as insignificant and 18% are missing cases. The assessment of „Insignificance“ is clearly over the average for the branch „67.13 Activities auxiliary to financial intermediation n.e.c.“.

**Figure 4.3F Prices**

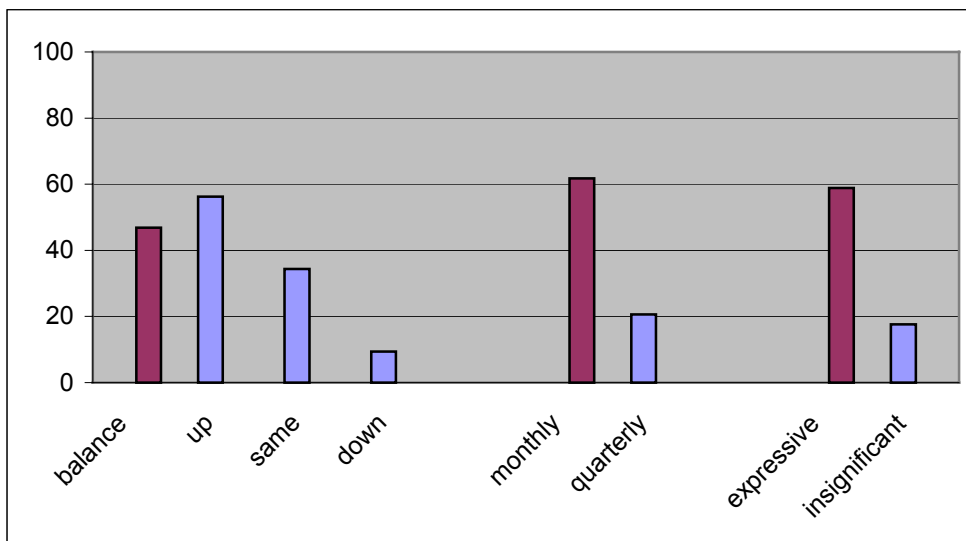


According to some comments and a few phone contacts, the development of prices may perhaps be subject to wording problems. The main problem is to differentiate between the development of income and the development of prices. Services which are not explicitly charged do not have a price known to the client. For those cases it would be better to ask directly about the development of margins. Some of the explicit charges for services are dependent on asset prices or turnover. For those cases it would be better to ask directly about the development of provision-rates.

**Development of Future Business Situation**

The question about the development of the business situation in the next 6 months was answered by 32 out of 34 respondents. The number of enterprises with an upward trend is considerably higher than those with a downward trend, leading to a balance of 47.

**Figure 4.3G Business situation next 6 months**



The availability of the information is indicated by 62% of the respondents as monthly and 21% as quarterly. In several comments it was stated that the forecast is dependent on the development of financial markets. Given the immanent uncertainty of these markets, a share of 59% of the respondents, assessing the question as significant for their business is rather high. The question is insignificant for 18% of the respondents and 23% are missing cases.

Whether the information content of this question is good or not, i.e. the predictive quality of this indicator, cannot be judged in the pilot study. We conclude that the question was – despite the uncertainty – answered by almost all respondents and assessed often as significant.

### **Additional Questions**

For a single respondent it was necessary to have a look at the accounts, but only with regard to the development of employment.

With a share of 82% the majority of the respondents do not use further indicators regarding the cyclical development of their business. This is the case for all respondents of branch “67 Activities auxiliary to financial intermediation”. For the 18% of the respondents who use further indicators, these are specific indicators of their markets such as insolvency for “Financial leasing”, total investment for “Other credit granting” and indicators of consumption for “Credit card services” (branch “Other credit granting” too).

## **4.4 Summary and Conclusions**

The indicators asked in the pilot study broadly cover the indicators used by the enterprises in the respective branches. Except for prices and employment, which call for a more specific wording, none of the questions suffer from wording problems.

Experience of business surveys currently conducted and results of the pilot study show that it is not practicable to record price trends by a single question. Consequently, price measurement may be the topic of a more detailed survey but is not suitable for a harmonised survey.

With regard to the development of employment the wording “full-time adjusted employment” should be used. The results show however that the development of employment is not closely related to the business of the companies. We know from the KOF Banking and Insurance Surveys that operating costs are not regularly available on a monthly basis. The development of employment may serve as a monthly indicator, despite the limited significance for the business. A better input-indicator is not known on a monthly basis.

The information content of the output-indicators volume of business and operating income is rather similar, which has already been shown by the analysis of the CBI/PwC FSS-data, and therefore just one of the questions should be used.

## 5 Confidentiality

### 5.1 General Aspects

The level of trust placed in the confidentiality of an institution which conducts surveys is one of its most important assets. Unfortunately, the institution conducting surveys cannot formally prove its confidentiality, it has to communicate it by giving an assurance of confidentiality and by its reputation. The reputation depends on the quality of the work done before and on the long tradition of confidentiality preserved by the institution.

To protect the good reputation, every action and every step of a survey has to be considered under the aspect of ensuring and increasing the general image of trust. To obtain privileged information, the data collector has to promise that it will not release any data records, aggregated data, or other information from which individual business information could be revealed (Cox, 1995). The institution has to take actions which show that security and anonymity of the provided information have absolute priority. This is particularly true for a panel survey of firms in the financial sector.

The institution conducting a survey has to establish clear intentions to protect the confidentiality of information collected from respondents. Confidentiality must be a top priority of the management of the institution. Every department involved in the survey has to check the effectiveness of the security measures regularly. The problem of confidentiality arises already in the preliminary phase (pilot survey or pre-test) and in the regular waves of a survey. The following elements of the conduct of surveys are highly sensitive to confidentiality aspects:

1. *First contact with an enterprise:* There are two situations to get into contact with a firm. One is the contact within a pilot survey or a pre-test. Specially selected firms have to be contacted for a quite intense co-operation. The other is when the survey starts. This first contact is decisive for the relation between the firm and the survey institution. Therefore the aim has to be to make a good impression independently of the reason of the contact. The institution conducting the survey should inform the firm of how they got the address. Moreover, the purpose, the frequency, the return by means of publication of results and in some cases the legal situation has to be declared. This is the first step to establish a situation of confidence with the survey institution.
2. *Coded questionnaire:* A main topic of confidentiality is the anonymous treatment of the collected data. Firms deliver sensitive data on their business activities. Thus, some of them are reluctant to complete a questionnaire which includes the address. The questionnaire should therefore not contain an alphabetic address. But the survey institution does at least need an identification code on the questionnaire.
3. *Transfer of information:* When conducting a postal survey, it is advisable to provide a postage-paid return-envelope for two reasons. Firstly, respondents do not need to search for an envelope and a stamp themselves, this will increase the response rate. Secondly, the return-envelope has an exact and correct address, so nobody else will open the letter. Online-surveys need to offer a secured connection between the firm and the survey institution.

4. *Storage of micro-data*: Micro-data are the most sensitive data and have to be treated adequately. Firms have to be informed that the micro-data will not be transferred to any other organisation. Moreover, they have to be used only for the purpose mentioned, e.g. in the accompanying letter.
5. *Publication of results*: In publications, particularly in tables, there is the danger of disclosure of individual responses if the participation in a specific cell is small. The institution conducting the survey has to take measures to prevent primary and complementary disclosure (Cox, 1995). Firms have to be informed that results will only be published if there is no possibility of identifying the answers of an individual firm.

The survey institution must ensure that the means of the results are adequate to protect confidentiality to the extent pledged or intended, that procedures for processing and use of data conform to the pledges made, and that appropriate care is taken in dealing with directly identifying information. To inform the responding firm about the confidential treatment of the collected data, there are three possibilities which do not mutually exclude each other: The survey institution declares to be a member of a professional organisation which has a “Code of Professional Ethics and Practices”<sup>3</sup>, it publishes a declaration of confidentiality on its home-page or it mentions the secure and anonymous treatment of the collected data in an accompanying letter or on the questionnaire itself. The effect of this last measure has been analysed by several researchers (Singer et al. 1995). It was found that the simple argument that “more is better” does not hold, but that a confidentiality statement has to be in accordance with the effective confidentiality problems in the questionnaire. Thus, a long and elaborate assurance of confidentiality will only have a positive effect if the survey has indeed sensitive questions. The same assurance in a survey without any sensitive questions can even have a negative effect on the response rate.

## 5.2 Confidentiality in Financial Services

All elements mentioned in Chapter 5.1 apply also to the financial sector. For these firms, confidentiality has an even higher relevance than for the average enterprise because of their financial activities. One of the main assets of firms in the financial sector is observing privacy and confidentiality in administering, lending or borrowing money. The slightest suspicion that the information delivered to the survey institution might not be treated as strictly confidential will result in non-participation.

This seemingly contradicts our findings in chapter 6.1.2. The banks not participating in the Swiss BTS were asked about their motives for non-participation. Less than 5% of these firms mentioned security problems as a main motive for non-participation. We do not interpret this result in the sense that confidentiality and security are irrelevant. On the contrary, we believe that the fear of security problems is a latent problem. But because of the confidence placed in the KOF – a well known and highly appreciated non-profit organisation linked to the government – the firms do not mention security as a problem. They probably see such a statement as vote of no confidence in KOF. But if any leaks appeared, the security problem would suddenly be the main topic.

A problem could arise with the oligopolistic structure of the financial sector on a national but not on the EU level. This is aggravated if the national results are divided into branches

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<sup>3</sup> As, e.g. the members of the American Association for Public Opinion Research: <http://www.aapor.org/ethics/code.html>



(banks, insurance) or even groups within branches. A simple disclosure limit of participants only holds good if there is no firm specific weighting and no weights of the universe for the aggregation by stratification. But in general, the qualitative survey results are at least weighted by the firm size or the size of the activities. In this case, an individual control of each sample or sub-sample, additionally taking the response rate into consideration, is necessary to decide whether the results concerned can be published. Cock (1995) offers a proposal to calculate the minimal size of a nondisclosure cell, taking into account the sample size and dominance of the biggest forms. But the limits are defined for quantitative statistics and therefore higher than for qualitative data. Therefore, each situation has to be judged separately. The aim of these calculations is the same as in all BTS: no firm should be identifiable from the published results. If this is not the case, the number of participants should be increased, an adequate weighting method should be applied or no results should be published on this level.

### 5.3 Measures to Achieve and Protect Confidentiality

The optimal handling of security problems is in the responsibility of each institution conducting surveys. Our proposals do not cover the whole range of possible measures but concentrate on those points which are particularly important in the financial sector. The following measures can help to increase confidentiality and thus the willingness of a firm to participate:

- *General security:* Every action connected with surveys in the financial sector has to be included in the existing security control mechanism of the survey institution.
- *Minimise sensitive questions:* The financial sector is particularly sensitive about questions which refer to their clients' situation or about questions concerning the profitability of the firm.
- *Minimise the number of questions:* Very detailed questions can give a too close picture of the business situation of a firm. Thus, generally formulated questions will be preferred.
- *Letter post:* Respondents are more willing to participate if they are contacted using a personally addressed envelope.
- *Address:* The questionnaire should not include an address, but only an identification code. This increases the trust of the respondent in the security measures taken by the institution conducting the survey.
- *Response envelope, perhaps prepaid:* In the case of letter post the firm should get a response envelope with the correct address of the survey institution. In this way, the firms will be sure that the questionnaire will be sent to the correct address and not be opened by an unauthorised person.
- *Website and e-mail:* Secure message exchanges (by means of certificate-based authentication, digital signature, encryption and others) will be a must.
- *Oligopolistic structure:* Introduction of a control for oligopolistic structures in the cells to be selected for publication. If some firms dominate the results, the necessary steps have to be taken to avoid disclosure of the business situation of an individual firm.

## 5.4 Summary and Conclusions

Confidentiality and reputation are important topics of an institution which conducts surveys. Every action and every step of a survey has to be considered under the aspect of securing and increasing reputation of and confidence in the survey institution.

Because of their activities, confidentiality has an even higher relevance for firms in the financial sector than in most other sectors. The slightest suspicion that the information delivered to the survey institution will not be treated as strictly confidential will result in non-participation.

The oligopolistic structure of the financial sector might be a problem on a national level; disaggregation still worsens the situation. If necessary, means to prevent disclosure of company-specific information – including non-publication of results – should be applied.

Special measures for security and confidentiality are not required for business surveys in the financial sector. However, this sector needs even greater attention to be paid to these aspects than in other sectors.

## 6 Response Rate

### 6.1 Special Survey on Responding Behaviour

A high response rate is probably the most important single factor to secure a high quality of survey results. Therefore it is necessary to be aware of the motives for participation and non-participation of firms in a survey. Only with this knowledge, can an improvement in the response rate be achieved. For this reason, we conducted a special survey in the Swiss banking sector in March/April 2002.

- The participants of the KOF Banking Business Survey were requested to state their motives for participation.
- The banks which were invited in spring 2000 to respond to the KOF Banking Business Survey, but which in fact did not participate, were requested to state their motives for non-participation.

The participants and also the non-participants were further asked about their preferred mode of survey and their preferred means of publication of regular results of a monthly survey with a short questionnaire.

**Table 6.1 Sample size and response of the special survey**

	Sample	Response	Response rate
<b>Participants</b>	92	71	77.2%
<b>Non-participants</b>	132	53	40.2%
<b>All</b>	224	124	55.4%

#### 6.1.1 Motives for Participation

The participants in a BTS have different motives which are partly interrelated. For this reason, we offered a question allowing for multiple answers. The participants in the KOF Banking Business Survey were asked the following questions:

(This special questionnaire was sent to the regular survey's contact person.)

#### Questions

From your point of view, what are the reasons for your participation in the Banking Business Survey?  
(Please mark with a cross in the appropriate square. Multiple answers permitted.)

- We are mainly interested in the results published
- We support the research done at KOF
- We prefer to respond by paper questionnaire
- We would like to respond by electronic means
- Other reasons: .....

Which of the following part of the results would you like to weight relatively higher in the report?

- Comments       Figures       Tables
- The current weighting of the different parts corresponds to our needs.

## Results

The special survey on motives for participation in the KOF Banking Business Survey achieved a response by 71 banks, which corresponds to a high response rate of 77%. The results are shown in Figures 6.1.1A and 6.1.1B.

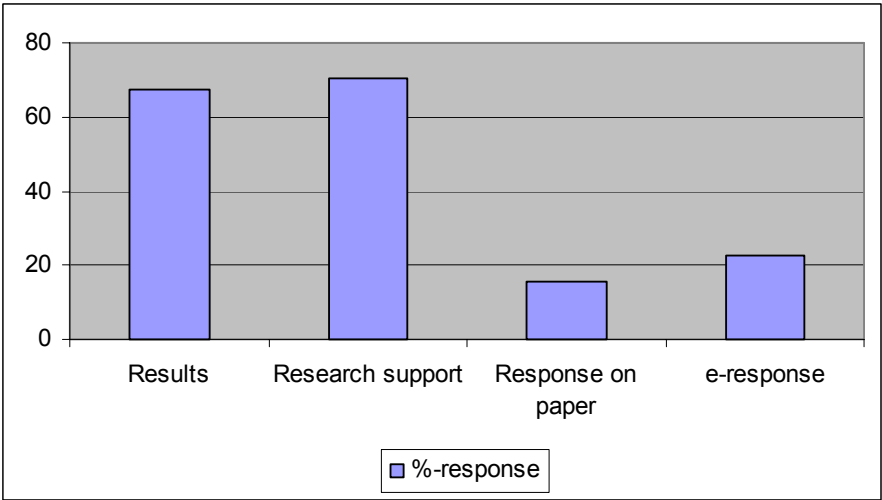
The core group of motives for participation consists of the two factors “We are mainly interested in the results published” and “We support the research done at KOF”. Surprisingly, the second factor achieved the highest score (70%). It seems that the quality of the research work of KOF in general is known and highly appreciated. Firms which crossed this item do not make a direct cost/benefit-calculation of the participation on the survey but are convinced that research in the business cycle is an important issue even if the firm does not profit directly from this work. Thus, one of the main factors to reach high response rates depends on the reputation of the institution conducting the survey.

Almost equally important for the participants are the published results (68%). This shows that a report of the results in return for the participation is a necessary measure to keep response rates high. Banks seem to be very interested in information about their market situation compared to the general trend. The quite large questionnaire (60 questions) offers detailed information about different activities.

Two questions deal with the methods of conducting the banking survey. 15% of the respondents answered that they “prefer to respond by paper questionnaire”. Only 23% answered that they “would like to respond by electronic means” which is rather lower a rate than in other surveys. It is probably the expression of the scepticism with respect to the security of electronic systems and the very high security standards of banks.

The KOF already introduced online surveys in the year 2000 (<http://survey.kof.ethz.ch>). To minimise the complexity for the respondents of the new surveys in the financial sector, only the letter post option was offered to the companies. The 23% opting in the special survey for electronic means will be asked in the next regular banking survey whether they would like to respond online or stay with the paper-questionnaire. KOF does not currently offer any alternative electronic means other than the online survey. The interest in electronic means shows, however, that it is necessary to offer alternative methods of responding to a survey. More aspects on preferences for responding to a business survey will be discussed in Chapter 6.1.3.

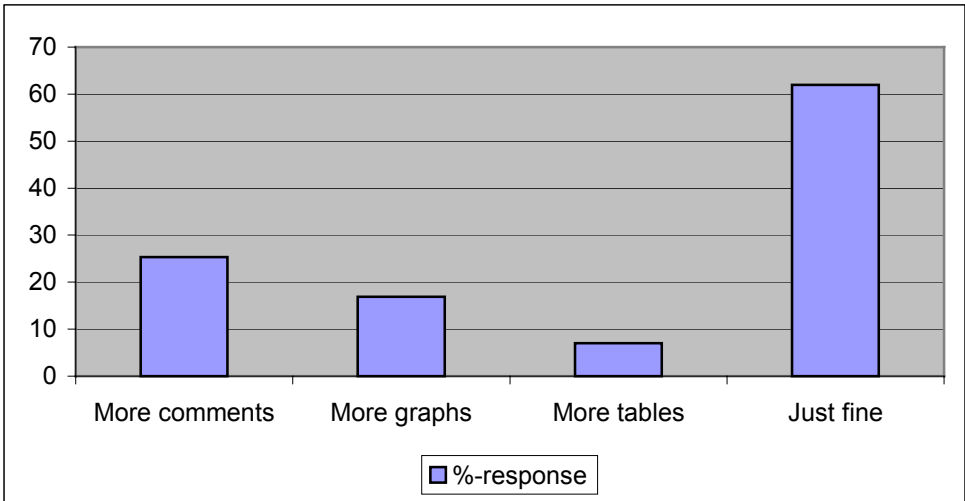
**Figure 6.1.1A Motives for participation**



The last item – “Other reasons” – was connected with an open question. Only one firm ticked this item, but did not specify a reason. This answer is not reproduced in Figure 6.1.1A.

Taking into account the importance of the report, the participants of the KOF Banking Survey were further asked “which part of the results” they “would like to weight relatively higher in the report”. The report currently includes 2 pages with comments, 3 pages with figures and 3 pages with tables. For a high proportion of the respondents (62%) “the current weighting of the different parts corresponds to their needs”, i.e. it is “just fine”. 25% would like to read more comments in the report and 17% would prefer more figures. Only 7% of the respondents would like to get more tables. These answers show: a) presenting the survey results in a combination of different forms (comments, figures, tables) is highly appreciated and b) there exists a preference for comments; i.e. the survey results have to be analysed, interpreted and presented by the survey institute in a way which is “ready-to-read”.

**Figure 6.1.1B Preferences in the report**



### 6.1.2 Motives for Non-Participation

In spring 2000 the management of the companies in the Swiss Banking Sector had been invited to participate the KOF Banking Business Survey. The banks which did not follow this invitation and therefore in fact are not participating in the banking survey were now invited to reply in a special survey to the following questions:

(This special questionnaire was sent again to the management of the bank.)

#### Questions

What are from your point of view the reasons why in the year 2000 your bank did not accept the invitation to participate in the quarterly Banking Business Survey?

(Please mark with a cross in the appropriate square. Multiple answers permitted.)

- The task of responding is too demanding for us
- The information asked is not relevant for us
- The results of tendency surveys are not sufficiently informative
- It is our view that there is an inadequate guarantee of data protection
- We do not participate in surveys which are not obligatory by law
- Other Reasons: .....
- The reasons for non-participation are not known. From today's point of view we are interested in participating in the survey.

#### Results

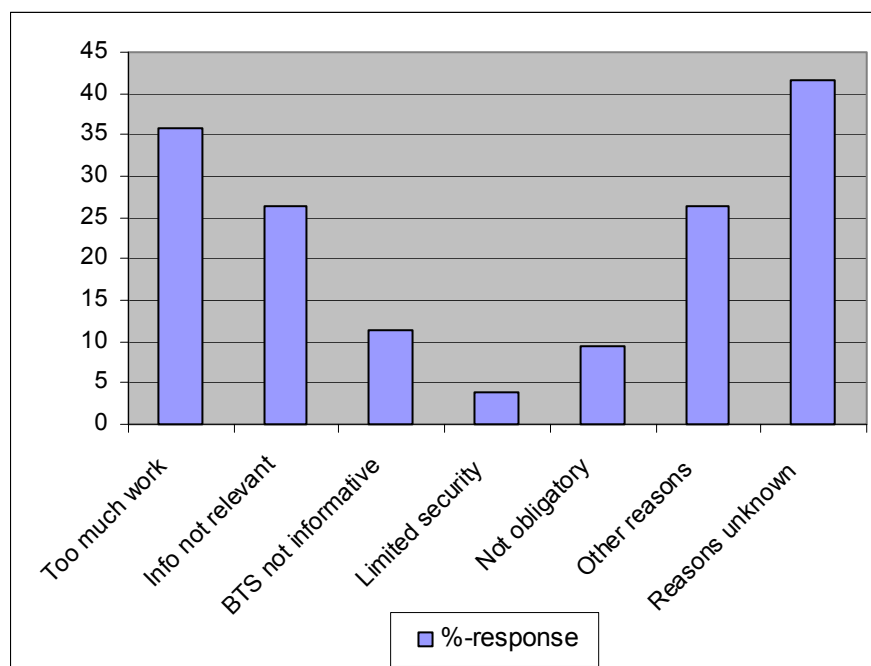
The special survey on motives for participation in the KOF Banking Business Survey achieved a response from 53 banks, which equals a response rate of 40%. The results are shown in Figure 6.1.2.

Not astonishingly “The task for responding is too demanding” gets the highest score of the known reasons for non-participation with 36% of mentions. There are two aspects to be considered in interpreting this result. The main point is that the KOF questionnaire includes 60 questions which is far more than in any other of its surveys. With a reduction of the questionnaire this argument can be limited. But there is a trade-off with the firms which are particularly interested in the detailed information which is offered by the survey. Additionally, it can not be excluded that some of these firms are simply unwilling to participate in this survey.

The second important element is that the “information asked is not relevant for us”. This is an important argument. If firms get no relevant return and they do not want to support the work of the institution conducting the survey (see Chapter 6.1.1), there are indeed no motives for participation. Banking business is a global business. For this reason, the results of the business activities in Switzerland (or of any other single country) are probably not very interesting for the respondents. The aggregated results for the total EU could be of greater interest. If this is the case, the national reports should also include the results of total EU. In a further investigation one could ask about the type of information (e.g. aggregated data from the banking survey to total EU, results of other surveys, comparative data from outside the EU) which is of interest for the banking institute. But this question goes beyond the intent of this study.

Banks are confronted with demands for a lot of quantitative statistics by the government and by the Central Bank. Moreover, banking managers are used to working constantly with quantitative data. Under these circumstances it is very encouraging that only 11% of the respondents find that the BTS data is not informative. Taking into consideration that these firms did not receive the reports because of non-participation, there is a potential to even reduce this negative response with a participation-campaign including a current report. The transformation of the qualitative responses into quantitative data by the balance technique considerably increases the information content presented in the reports.

**Figure 6.1.2 Motives for non-participation**



Fourth position in the motives for non-participation is the response “We do not participate in surveys which are not obligatory by law”, covering 9% of the responses. We are quite impressed that only a small number of firms refuse as a matter of principle to participate in the surveys which are not compulsory. This is an indication, that banks are generally willing to offer more information about their business activities.

Practically irrelevant (4% of notions) is the problem of data protection, indicated as limited security in Figure 6.1.2. But it does not mean that data protection itself is irrelevant. On the contrary, we include a special Chapter in this report to the subject of confidentiality. The result only signals that banks have trust in the confidential treatment of the responses by the KOF.

The open-ended reply “Other reasons” was used by 26% of the respondents. Among others the following reasons were mentioned: “too many questionnaires”, “we are too small” and “lack of time”. But there was no aspect which was named several times.

More than 41% of the respondents ticked “Reasons unknown”. At a time when banks are undergoing major restructuring on personal and operational level, this is no surprise. The person, who received our questionnaire this time may not have been in this job yet two years

ago. Or the treatment of questionnaires was handled by another department. For this reason, the high percentage is plausible.

**6.1.3 Preferences for Mode of Survey and Means of Publication**

The special survey on motives for (non-)participation was accompanied by a questionnaire with identical questions to both samples: participating and non-participating banks in the KOF Banking Business Survey.

**Questions**

Recent developments in Europe focus on regular monthly tendency surveys on the economic situation of enterprises. Up to 10 questions may be answered in 5 minutes at the most.

Assuming your bank would participate in such a survey in Switzerland

a) What **mode of survey** would you prefer? (Please indicate the priority: 1., 2., ...)

- Questionnaire on paper sent by letter post
- Questionnaire on website (secured access)
- Questionnaire by e-mail (coded)
- Questionnaire by fax
- Phone interview

b) What **means of publication** would you prefer for the results? (Please indicate the priority: 1., 2., ...)

- Publication on paper sent by letter post
- Publication on website (secured access)
- Publication by e-mail (coded)
- Publication by fax

Comments: .....

**Results**

The survey on preferences for the mode of survey and the means of publication of regular results achieved a response of 124 banks, which equals a response rate of 55%. The results are shown in Figure 6.1.3A and Figure 6.1.3B. To obtain optimal information about the preferences, the sum of the first and the second priority scores are reproduced in these Figures.

**Mode of Survey**

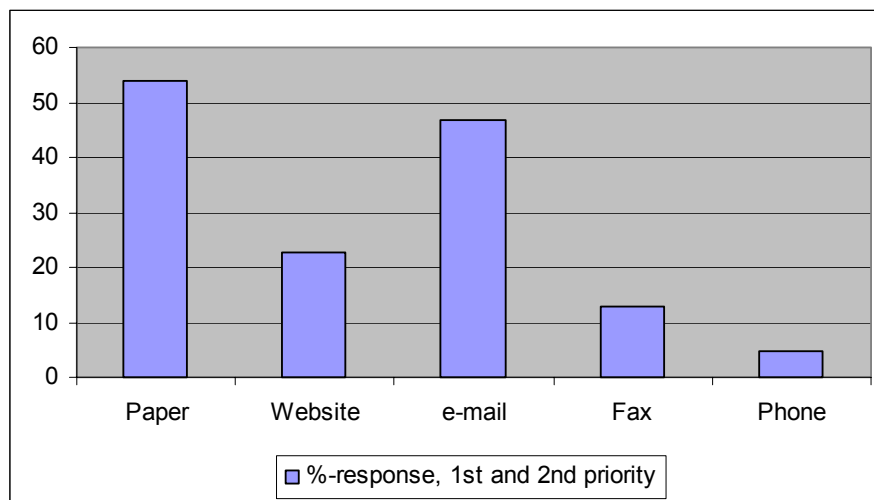
Survey techniques have developed very fast over the last years. Currently, five modes of surveys are internationally used for BTS. The paper questionnaire by letter post is most commonly in use. This applies also to the banks' preferences. 54% of the firms gave to the paper mode the first or the second priority. Astonishingly, the second most popular mode is sending the questionnaire by e-mail (47%). The questionnaire on the website (online survey) is preferred only by 23% which is below the average participation on Internet of the other BTS conducted by KOF (see Chapter 6.2). Knowing the strong security requirements on the banks' IT equipment, the open access to Internet (websites, ftp, etc.) is limited to stand-alone systems only. But almost everyone in a bank has a (personal) e-mail address. This may be



the reason for the high score for e-mail and the low one for online surveys. However, a secured questionnaire for an online survey has been developed and is already in use while for e-mail this is still task to be tackled. Nevertheless the results of this survey show some “need” for an e-mail solution. Questionnaire by fax or even phone interviews do not suit the banks’ requirements. The low score rather shows a certain aversion to phone interviews.

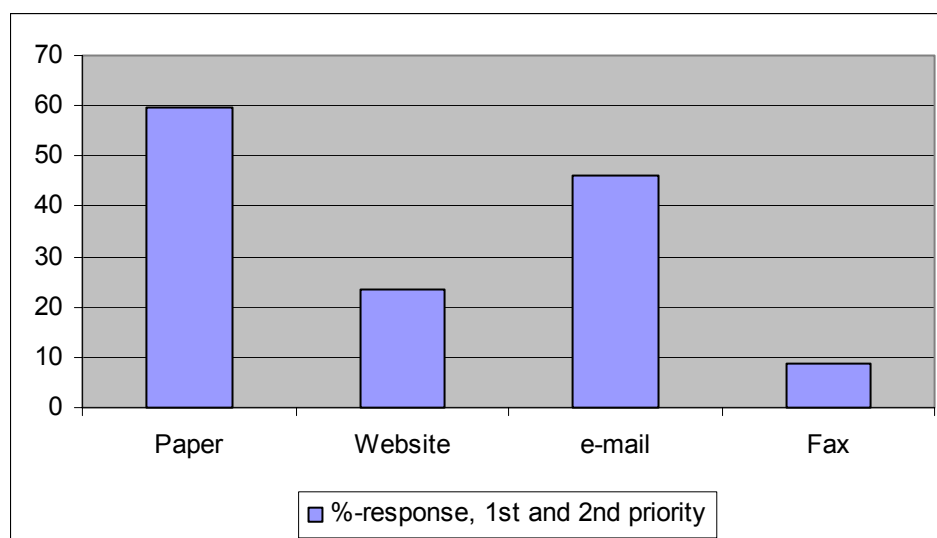
The results give no clear preference for a single mode of survey to be used. If just one mode can be offered, the paper questionnaire sent by letter post would be the best choice. According to the survey results we recommend offering at least a second mode of survey, which should be an electronic one in addition to a paper questionnaire.

**Figure 6.1.3A Preferred mode of survey**



### Means of Publication of Regular Results

The preferences for the means of publication of regular results do not differ strongly from the preferred mode of survey. But in the set of options, obviously the reply "phone" had to be excluded for the publication of the results. To obtain an optimal information about preferences we again added the first and the second priority scores to one another. The most preferred means of publication is in paper form too, followed by e-mail. Publication on a website is not highly appreciated and publication by fax received less than 10% of the first or second priority. Due to the low quality of a fax transmission we are not astonished about this outcome.

**Figure 6.1.3B Preferred means of publication of results**

At the end of the questionnaire we offered an open field for comments. But only few comments were made by the participants. One firm criticised the very short time interval and felt a survey with such a high frequency was useless. The other remarks did not deal with the mode of survey or means of publication but pointed to more technical aspects.

## 6.2 Experience Based on Other Surveys

All KOF business tendency surveys were based on a paper questionnaire which was sent by letter post. Against the background of the demands of firms and the obvious advantages of an online survey, we successfully established a pilot online survey in 1999. During 2000, we successively introduced the online survey and in 2001 the monthly and quarterly surveys were all accessible on the Internet. The firms could choose between the traditional mode on paper or the internet mode; thus the surveys are all conducted in a mixed mode. In 2001, 28% of the sample size is participating by Internet and this percentage is slowly increasing.

One question could not be answered before the start of the Internet survey. How will the response rate react to the introduction of the online survey? Table 6.2 gives a clear answer. There is no survey with a higher response rate by Internet than by letter post. The difference in the response rate is 15%-points in average. The size of this difference can be influenced by different measures, but it is obvious that the surveys will suffer from a reduction of the response rates with the introduction of the online survey.

**Table 6.2 KOF Business surveys: response rates**

Average of Year 2001	Letter post			Internet			Total		
	Sample	Response	Quota	Sample	Response	Quota	Sample	Response	Quota
Manufacturing Industry	1188	826	69.5	553	329	59.4	1741	1154	66.3
Construction	1098	818	74.5	344	143	41.5	1442	961	66.6
Retail Trade	523	374	71.5	180	112	62.2	703	486	69.1
Hotel and Catering	966	596	61.6	258	146	56.5	1224	741	60.6
Architects and Engineers	631	494	78.3	376	217	57.6	1007	710	70.6

In spite of this disappointing result we still believe that the institutions conducting surveys cannot reject this new technology. But research must go on to find ways of improving the response rate for online surveys.

### 6.3 Summary and Conclusions

A high response rate is probably the most important single factor for securing the high quality of survey results. Therefore it is necessary to know the reasons for participation or non-participation of firms in a survey.

Results of a special survey conducted within the Swiss banking sector revealed that – for participants of the KOF Banking Survey – the two core motives for participation are the interest in the results published and the support of the research done at KOF. This shows that receiving results in return for participation is necessary to keep response rates high. Moreover, one of the main factors for attaining high response rates depends on the reputation of the institution conducting the survey.

Concerning the mode of conducting the survey, banks prefer to respond by means of paper questionnaires and show a certain aversion to phone interviews. Response using electronic means is not popular which reflects the scepticism about the security of electronic means and the very high security standards of banks.

The main motives for non-participation are, firstly, the effort entailed in responding is assessed as too high and, secondly, the information asked is not relevant for the bank.

According to questions posed, the traditional paper questionnaire is preferred for a monthly survey. Also popular is a questionnaire by e-mail, while online surveys are not very popular. For means of publishing results paper is also preferred to electronic devices.

## **7 Conclusions and Recommendations**

The conclusions drawn and recommendations given in this study for a harmonised EU service survey in the financial sector are based on an analysis of the information content of questions used in Business Tendency Surveys (BTS) currently conducted in the financial sector within and outside the EU, on a pilot study conducted in Switzerland in selected branches of the financial sector and on an analysis of data from the CBI/PwC Financial Services Survey (FSS).

### **7.1 Questions of a Harmonised EU Service Survey in the Financial Sector**

In Business Tendency Surveys the questions focus on past developments, judgements and expectations or plans of some economic variables. These variables are requested in reference to the situation and development of the responding firm and not of the sector. This means the survey questions which are directed to the companies in the financial sector focus on their own business activities.

The harmonised EU service survey includes five questions. The programme was developed by economic experts and has already been introduced to the service sector, except for a few branches, including branches of the financial sector. One conclusion drawn from our study is that these questions are also applicable to the financial sector.

#### **7.1.1 The Firms' Overall Economic Situation**

Questions on judgements have a long tradition in BTS, because assessments made by firms are a unique form of qualitative information not collected by quantitative statistics. The business situation is an item which is not clearly defined. An assessment concerning this item is particularly suited for the service sector where the performance of a firm is hard to define. As currently conducted surveys show, firms have no difficulty in responding to such a question. Moreover, the stable development of the indicator is an advantage for economic interpretation which should not be underestimated.

A question concerning the assessment of the business situation is already included in several business surveys currently conducted in the financial sector. The respective question in the KOF Banking and Insurance Surveys is regularly answered by the responding firms. The results show - as in other sectors - a rather smooth evolution of this variable because an assessment of the level of the item is requested and not the changes.

In the CBI/PwC Financial Services Survey this question is asked with a different, more forward-looking wording, i.e. the optimism about the overall business situation. For the respective series of the CBI/PwC-FSS data, a high contemporaneous correlation occurs with the series concerning the expected volume of business. The information content of these two questions is thus quite similar, which is confirmed by the results of the principal component analysis revealing similar factor-loadings on the same component, identified as capturing information on output. Also highly correlated with the optimism about the overall business situation, i.e. the expected business situation, are the items income and profitability.

According to the experience gained in quarterly surveys currently conducted in the financial sector, the assessment of the business situation is an appropriate indicator for this sector. In

the harmonised EU service survey, the respective question is asked every month. An assessment may be made at any time and an optimal frequency is not a priori specified.

We recommend asking about an assessment of the business situation in the financial sector, and using a monthly frequency to make results comparable to sectors covered by the harmonised EU service survey. The wording of this question should avoid the term “business climate”.

An additional question on expectations concerning the future business situation is less recommendable for two reasons. Firstly, every evaluation of an current situation already includes some forward-looking elements and consequently a question on expectations can have a priori only a small lead. Secondly, the analysis of the CBI/PwC-FSS data showed that the predictive power of most expectation variables in the financial sector is very limited. What might favour such a question is the analytical advantage of paired questions and the possibility of calculating a business climate index.

### **Recommended Question:**

*Monthly:*

- We assess our business situation as: good / satisfactory / bad

### **7.1.2 Output**

Services are of intangible character. The measurement of output is therefore difficult, and a question directly asking about the development of output would not be appropriate. However, several indicators can describe the development of output: operating income, demand or the volume of business.

In the national accounts, for most of the activities in the financial sector, output is measured by **operating income**, consisting of interest income, commission and fee income, premiums and investment income. The use of the same methodology for business surveys as for the national accounts will make it possible to compare this information. The best indicator for the development of output in BTS would consequently be to ask about the development of operating income. For many financial intermediaries, information on operating income is available on a regular monthly basis. However, this is not the case for all enterprises in the financial sector. For this reason we recommend asking about the development of operating income on a quarterly and not on a monthly basis. The output measurement for life- and non-life insurance differs from other branches of the financial sector. However, the methodology used in the national accounts is not applicable to a qualitative survey with only a few questions, and therefore the operating income, consisting of premium income and investment income, is used as an approximation of output trend.

Because the predictive power is rather low in the financial sector, and because expectations are better recorded by using a more general wording, we recommend asking only about the past development of operating income.

Given that the harmonised EU surveys are conducted monthly, it is necessary to have another item suitable for describing the past and expected development of the output on a monthly basis. For most services a close relationship exists between output and **demand**, since services have to be produced when they are demanded. Demand is thus also an indicator for output.

However, some differences between the demand and the output measured by the operating income or volume of business may arise from two sources: Firstly, a time lag may occur between the request for a financial product (interpreted as demand) and the settlement of the financial product as well as the respective charge (output measured by income). Secondly, a difference may occur if the request for a financial product is interpreted as demand but will not be followed by a transaction which is explicitly or implicitly charged, and consequently will not generate any income.

The information content of the development of demand may thus be slightly different from the information content of the development of income. Demand may have a small lead over income.

The harmonised EU service survey includes a monthly question on the evolution of past and expected demand. In the financial sector, a similar question is posed in the KOF Banking and Insurance Surveys. This question is answered by almost all respondents, indicating a broad acceptance of the question. According to the results of the pilot study in the financial sector, no problems occur with the response to this question, information is in most cases available on a monthly basis and the question is assessed as being significant for the business. This experience clearly shows that the question on the past and future development of demand is appropriate for the financial sector. Considering the low predictive power of output variables in the financial sector, revealed by the CBI/PwC-FSS data analysis, it is not really necessary to ask separate questions on the past and expected development of demand. Harmonisation, however, calls for the use of both questions.

To measure output, the question recommended on the past development of operating income captures the development of output on a quarterly basis as closely as possible. We additionally recommend using the questions from the harmonised EU service survey on the past and expected evolution of demand as monthly indicators of the past and future development of output.

### **Recommended Questions:**

#### *Monthly:*

- The evolution of demand in recent months has been: up / unchanged / down
- The evolution of demand in the coming months will be: up / unchanged / down

#### *Quarterly:*

- The development of our operating income in the last three months, compared to the previous three months, has been: up / unchanged / down

**Box B: Alternative Question to Measure Output**

As an alternative to a question on the development of operating income as an indicator of the development of output, a question on the development of the **volume of business** could be asked. According to the results of the CBI/PwC-FSS data analysis, there is a rather high correlation between the two questions concerning operating income and the question on the volume of business. A similar information content is also revealed by the results of the principal component analysis, since all three series load heavily on the component which captures information on output. The close relationship between the volume of business and operating income is, on the one hand, judged by the fact that charges for many financial services are directly related to level series and, on the other hand, that quite a few respondents use the development of income as an indicator for the volume of business. According to the pilot study, information on the volume of business is available in most cases on a monthly basis, and it is already known from the banking sector that volume series tend to be available monthly or even more frequently.

### 7.1.3 Input

Input is used for the production of services and regarded as a corresponding element to output. Input in the financial sector are the commonly known input factors and can be measured by factor payments. From the point of view of the enterprise, factor payments are defined as **operating costs**, consisting of personnel expenses and other operating expenses. The most important input factor in the service sector – and especially also in the financial sector – is labour. The development of personnel expenses or employment may therefore serve as an approximate indicator for the development of operating costs. Other components of input are technical equipment (IT) and spatial capacity. The running expenses of the last two items are included in the operating costs (other operating expenses), while investments in these factors are covered by investment surveys.

One part of input is defined as intermediate input and is used in the national accounts as a necessary item for measuring the development of value added. Such a distinction would be interesting for a more detailed survey, but the information content of a harmonised survey may already be assessed as good if it captures the development of output and input.

The operating costs are not available on a monthly basis for all financial intermediaries. This applies to personnel as well as other operating expenses. Comparable to operating income, we recommend asking about the development of operating costs on a quarterly basis and for the past development only.

The development of **employment** serves as an indicator for the development of input available on a monthly basis. The information content may be somewhat different from the information content of the development of operating costs. A small lag between employment and operating costs may occur, since employment is known to be a lagging indicator in the economic cycle.

The harmonised EU service survey includes a monthly question on the evolution of past and expected employment. The KOF Banking and Insurance Surveys also ask about the development of employment. Some institutes do not answer this question, which is interpreted in such a way that their acceptance of the question is not as high as for the question concerning the business situation and the development of demand, but high enough to obtain a useful indicator.

However, the results of the pilot study in the financial sector revealed some difficulties with this question, because almost one third of the respondents did not answer this question and only two thirds have information available on a monthly basis. Furthermore, the question has not often been assessed as significant for the business. In contrast to this, the analysis of the CBI/PwC-FSS data showed that the item “number of employees” is a rather good indicator of the development of input. We conclude that our analysis did reveal some difficulties with this item but none of a serious nature, and therefore the questions on the past and future development of employment are suitable for the financial sector.

To measure input, the question recommended on the past development of operating costs captures the development of input as closely as possible on a quarterly basis. We additionally recommend using the questions from the harmonised EU service survey on the past and expected evolution of employment as monthly indicators of the past and future development of input. The wording of this question should, however, include the specification “full-time adjusted”.

### **Recommended Questions:**

#### *Monthly:*

- The evolution of our full-time adjusted employment in recent months has been: up / unchanged / down
- The evolution of our full-time adjusted employment in the coming months will be: up / unchanged / down

#### *Quarterly:*

- The development of our operating costs in the last three months, compared to the previous three months, has been: up / unchanged / down

## **7.2 Specific Issues Concerning the Survey Method**

### **7.2.1 Confidentiality**

The level of trust placed in the confidentiality of an institution which conducts surveys is one of its most important assets. The institution has to communicate this by giving an assurance of confidentiality and through its reputation. The reputation depends on the quality of the work done in the past, and on the long tradition of confidentiality maintained by the institution. To protect this good reputation, every action and every step of a survey has to be considered under the aspect of preserving and increasing the general image of trust.

This is particularly true for a panel survey of firms in the financial sector. For these firms, confidentiality has an even higher relevance than for the average enterprise, because of their financial operations. One of the main assets of firms in the financial sector is their privacy and the confidentiality in administering, lending or borrowing money. The slightest suspicion that the information delivered to the survey institution will not be treated as strictly confidential will result in non-participation.

A problem could arise with the oligopolistic structure of the financial sector on a country but not on the EU level. This is aggravated if the national results are divided into branches (banking, insurance) or even groups within branches. Every possible step – including non-publication – should be taken to prevent any disclosure of company-specific information.



For a survey in the financial sector we do not propose the implementation of special measures for security and confidentiality. BTS in the manufacturing industry and in other economic sectors all need special attention to be paid to the problem of security and confidentiality. But a survey in the financial sector requires even greater attention to be paid to these aspects.

### 7.2.2 Response Rate

A high response rate is probably the most important single factor to secure a high quality of survey results. Therefore it is necessary to know the motives for participation or non-participation of firms in a survey. For this reason, KOF conducted a special survey within the Swiss banking sector in March/April 2002.

- The participants of the KOF Banking Business Survey were requested to state their motives for participation.
- The banks which were invited in spring 2000 to respond to the KOF Banking Business Survey, but which in fact did not participate, were requested to state their motives for non-participation.

The two core motives for participation are the interest in the results published and the support of the research done at KOF. This shows that receiving results in return for participation is necessary to keep response rates high. Moreover, one of the main factors for attaining high response rates depends on the reputation of the institution conducting the survey.

There are two questions concerning the mode of conducting the banking survey. Evidently, banks appreciate being able to respond by means of paper questionnaires. Response using electronic means is named by only a small number. This result reflects the scepticism about the security of electronic means and the very high security standards of banks.

The banks which do not actually participate in the banking survey were invited to reply to special questions on their motives for non-participation. Not astonishingly, “The task of responding is too demanding” gets the highest score. The second most important response is that the information asked is not relevant for the bank. Banking business is a global business. For this reason, the results of business activities in Switzerland (or of any other single country) may be of limited interest to the respondents. But the aggregate results for the EU as a whole could be of greater interest. Therefore, national reports should include as soon as available results of the whole of the EU, too.

The special survey on motives for (non-)participation was accompanied by identical questions on preferences for the mode of survey and the means of publication of regular results to both, participating and non-participating banks in the Business Survey of KOF. According to the results, the paper questionnaire by letter post is the most preferred mode for a monthly survey. Astonishingly, the second most-popular mode is sending the questionnaire by e-mail. The questionnaire on the website (online survey) is not particularly popular. The results show a strong preference for the traditional paper questionnaire and a certain aversion to phone interviews. In addition to paper questionnaire, there is some “need” for an e-mail rather than for a website solution as a second survey mode. Similar preferences – paper preferred to electronic devices – are indicated for the means of publishing the results.

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# Appendix 1 Questionnaires

## CBI/PwC



For office use only

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CONFIDENTIAL

### Survey of Financial Services

Number 48 September 2001

Please tick appropriate answers.  
If any question is not applicable, tick n/a box

CBI  
Business Survey Unit  
Centre Point  
103 New Oxford Street  
London WC1A 1DU  
Telephone 020 7395 8104/8244  
Facsimile 020 7836 1210/5856  
www.cbi.org.uk/business surveys

**CBI/PricewaterhouseCoopers Survey of Financial Services**  
Please answer with respect to your UK operations only. All active respondents receive the results free of charge.

Where your business covers more than one of the activities outlined on the final page of the questionnaire, you may wish to complete more than one form, or ask your different operating subsidiaries to fill in separate forms. If necessary, please contact the CBI Business Survey Unit (see telephone number below), for extra copies of this questionnaire. Reflecting the rapid expansion of the internet in recent years and its importance in the decision-making process for UK business, the Financial Services Survey questionnaire has been expanded to cover this important area under the heading 'New economy: e-business'.

If you have any queries, please contact Veljka Cassidy, Senior Survey Administrator at the CBI on 020 7395 8104. Thankyou for your co-operation in completing this survey.

**1** Are you more, or less, optimistic than you were three months ago about the **overall business situation in your sector?**

more	same	less
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**2 Value and volume of business**  
Excluding seasonal variations, do you consider that in volume terms:

above normal	normal	below normal
--------------	--------	--------------

(a) Your present level of business is  above normal  normal  below normal

(b) Your present level of business with overseas customers is  above normal  normal  below normal

**3** Excluding seasonal variations, what has been the trend over the **past three months** and what are the expected trends for the **next three months** in:

	past three months				next three months			
	up	same	down	n/a	up	same	down	n/a

(a) Volume of business  up  same  down  n/a  up  same  down  n/a

(b) Value\* of fee, commission or premium income  up  same  down  n/a  up  same  down  n/a

(c) Value\* of net interest, investment or trading income  up  same  down  n/a  up  same  down  n/a

(d) Value\* of new business (life insurance companies only)  up  same  down  n/a  up  same  down  n/a

\*in sterling

**CBI/PwC**

**4** What is the trend in your 'volume of business' with regard to the following categories of customer:

	past three months				next three months			
	up	same	down	n/a	up	same	down	n/a
Industrial & commercial companies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financial institutions	<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 individuals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overseas customers (of your UK-based operations)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**5** **Charges, costs and profitability**  
 Excluding seasonal variations, what has been the trend over the **past three months** and what is the expected trend for the **next three months** with respect to:

	past three months				next three months			
	up	same	down	n/a	up	same	down	n/a
(a) Average spreads (or the difference between lending and borrowing 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"/>
(b) Average commissions/fees/premiums	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) Total operating costs (excluding cost of funds)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d) Average operating cost per transaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e) The value of non-performing loans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(f) The value of insurance claims (for general insurance companies only)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(g) The value of surrendered or lapsed life insurance contracts of less than two years duration (for life insurance companies only)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(h) Overall profitability of business	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**6** **Employment and training**  
 Excluding seasonal variations, what has been the trend over the **past three months** and what are the expected trends for the **next three months** in:

	past three months				next three months			
	up	same	down	n/a	up	same	down	n/a
(a) Numbers employed	<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) Training expenditure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) Staff costs as a proportion of total costs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**7** **Marketing expenditure**  
 Do you expect to authorise more or less expenditure on marketing activities in the **next 12 months** than you authorised in the **past 12 months**?

more	same	less	n/a
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**8** **Capital expenditure**  
 Do you expect to authorise more or less capital expenditure in the **next 12 months** than you authorised in the **past 12 months** on:

	more	same	less	n/a
(a) Land and buildings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Vehicles, plant and machinery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) Information technology*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\*Including software, hardware, personnel and any other expenses related to information technology

**CBI/PwC**

**9** What are the main reasons for any expected **capital expenditure authorisation** over the **next 12 months**? If you tick more than one factor it would be helpful if you could rank them in order of importance, where 1 = most important.

- To provide new services
- To increase efficiency/speed
- To reach new customers
- For replacement
- To expand capacity
- Euro related
- Other (please specify).....

**10** What factors are likely to limit (wholly or partly) your capital expenditure authorisations over the **next 12 months**? If you tick more than one factor it would be helpful if you could rank them in order of importance, where 1 = most important.

- Inadequate net return on proposed investment
- Shortage of finance
- Cost of finance
- Uncertainty about demand/business prospects
- Shortage of labour including managerial and supervisory staff
- Other (please specify).....

**Business prospects**

**11** What factors are likely to limit your ability to increase your level of business over the **next 12 months**? Please tick the most important factor or feature. If you tick more than one factor or feature, it would be helpful if you could rank them in order of importance, where 1 = most important.

	total business	business with overseas customers
Level of demand	<input type="text"/>	<input type="text"/>
Availability of professional staff	<input type="text"/>	<input type="text"/>
Availability of clerical staff	<input type="text"/>	<input type="text"/>
Adequacy of systems capacity	<input type="text"/>	<input type="text"/>
Ability to raise funds	<input type="text"/>	<input type="text"/>
Competition (domestic)	<input type="text"/>	<input type="text"/>
Competition (overseas)	<input type="text"/>	<input type="text"/>
Statutory legislation	<input type="text"/>	<input type="text"/>
Other (please specify).....	<input type="text"/>	<input type="text"/>

**12** How do you feel the competitiveness of your UK-based operations has changed vis-a-vis competitors based overseas, over the **past three months**?

	improved	no change	decreased	n/a
Other European competitors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Competitors outside Europe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**ifo**

**Ifo Institut**  
für Wirtschaftsforschung

**Business survey**  
**Life insurance**

	Overall business	Endowment insurance	Annuity insurance	Term incl. occupational accident insurance	Funds and index-linked life insurance
<b>Current situation or trend in the year thus far</b>					
1) We assess our current <b>business situation</b> as					
• good	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• satisfactory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• poor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) <b>Competition within the life insurance industry</b> from our viewpoint has					
• increased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• not changed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) The <b>competitive position of the life insurance in retirement savings</b> - i.e. vis-à-vis mutual funds, real estate, etc - from our point of view has					
• improved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
• not changed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
• worsened	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Please state why:.....					
4) <b>Receipts from premiums</b> - in comparison to the same period last year - have					
• risen clearly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• risen slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• remained about the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• decreased slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• decreased clearly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5) Our <b>gross new policies</b> - in comparison to the same period last year - for					
a) <b>annual premiums</b> have					
• risen clearly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• risen slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• remained about the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• decreased slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• decreased clearly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) <b>one-time premiums</b> have					
• risen clearly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
• risen slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
• remained about the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
• decreased slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
• decreased clearly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
6) Our <b>number of policies</b> has					
• tended to increase	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• shown no change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• tended to decrease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**ifo**

2

**Life insurance**

(Pilot questionnaire for the first three quarters of the year)

	Overall business	Endowment insurance	Annuity insurance	Term incl. occupational accident insurance	Funds and index-linked life insurance
<b>Plans and expectations to the end of the year</b>					
7) <b>Competition <u>within</u> the life insurance industry</b> <i>from our viewpoint</i> will					
• increase somewhat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• remain unchanged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• decrease somewhat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8) The <b>competitive position of the life insurance in retirement savings</b> - i.e. vis-à-vis mutual funds, real estate, etc - <i>from our point of view</i> will					
• improve	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
• remain unchanged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
• worsen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
9) <b>Receipts from premiums</b> - in comparison to the same period last year - will					
• clearly increase	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• increase slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• remain about the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• decrease slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• clearly decrease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10) Our <b>gross new policies</b> - in comparison to the same period last year - for					
a) <b>annual premiums</b> will					
• clearly increase	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• increase slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• remain about the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• decrease slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• clearly decrease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) <b>one-time premiums</b> will					
• clearly increase	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
• increase slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
• remain about the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
• decrease slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
• clearly decrease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
11) Our <b>number of policies</b> will					
• increase somewhat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• remain about the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• decrease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Business expectations</b>					
12) <b>In the next six months</b> our business will be					
• somewhat more favourable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• remain about the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• somewhat less favourable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>





**Ifo Institut**  
für Wirtschaftsforschung

**Business survey**  
**Non-life insurance**

	Overall business	Endowment insurance	Annuity insurance	Term incl. occupational accident insurance	Funds and index-linked life insurance
<b>Current situation or trend in the year thus far</b>					
1) We assess our current <b>business situation</b> as					
• good	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• satisfactory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• poor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) <b>Competition within the non-life insurance industry</b> from our viewpoint has					
• increased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• not changed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• decreased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) The <b>competitive position of the non-life insurance in loss-ratio</b> has					
• improved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
• not changed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
• worsened	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Please state why:.....					
4) <b>Receipts from premiums</b> - in comparison to the same period last year - have					
• risen clearly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• risen slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• remained about the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• decreased slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• decreased clearly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5) Our <b>gross new business</b> (premiums) - in comparison to the same period last year – for					
a) <b>annual premiums</b> have					
• risen clearly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• risen slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• remained about the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• decreased slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• decreased clearly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) <b>one-time premiums</b> have					
• risen clearly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
• risen slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
• remained about the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
• decreased slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
• decreased clearly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
6) Our <b>number of policies</b> has					
• tended to increase	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• shown no change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• tended to decrease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**ifo**

**Non-life insurance**

(Pilot questionnaire for the first three quarters of the year)

	Overall business	Endowment insurance	Annuity insurance	Term incl. occupational accident insurance	Funds and index-linked life insurance
<b>Plans and expectations to the end of the year</b>					
7) <b>Competition within the non-life insurance industry</b> from our viewpoint will					
• increase somewhat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• remain unchanged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• decrease somewhat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8) The <b>competitive position of the non-life insurance in loss ratio</b> from our point of view will					
• improve	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• remain unchanged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• worsen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9) We expect in the market a change in tariffs					
a) <b>for actual business</b>					
• up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• no, no change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• down	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) <b>for the new business</b>					
• up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• no, no change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• down	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10) <b>Receipts from premiums</b> - in comparison to the same period last year - will					
• clearly increase	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• increase slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• remain about the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• decrease slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• clearly decrease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11) Our <b>gross new policies</b> - in comparison to the same period last year - for					
a) <b>annual premiums</b> will					
• clearly increase	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• increase slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• remain about the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• decrease slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• clearly decrease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) <b>one-time premiums</b> will					
• clearly increase	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• increase slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• remain about the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• decrease slightly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• clearly decrease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12) Our <b>number of policies</b> will					
• increase somewhat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• remain about the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• decrease	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**ifo**

3

**Non-life insurance**

(Pilot questionnaire for the first three quarters of the year)

	Overall business	Endowment insurance	Annuity insurance	Term incl. occupational accident insurance	Funds and index-linked life insurance
<b>Business expectations</b>					
13) In the next six months our business will be					
• somewhat more favourable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• remain about the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• somewhat less favourable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**LZB/ifo****Deutsche Bundesbank  
Regional Office Munich – LZB****Business survey  
Banks**

in cooperation with ifo Munich

**Assessment and trends in the survey quarter**

- 1) Our current **business situation** can be assessed as  
 favourable       satisfactory       unfavourable
- 2) In comparison to the previous quarter, the number of our **employees** has  
 risen       remained the same       declined
- 2a) (Only if there has been a rise or decline employment)  
 The **change in employment** is due to (several answers possible)  
 an **expansion/decline in business** (or insufficient growth)  
 personnel reductions/additions to **improve our competitive position**  
 **insourcing/outsourcing** of business operations  
 **other reasons** (e.g. hiring trainees, departures due to maternity leave)
- 3) In the past three months, our **profitability** has
- |   | improved                 | remained<br>unchanged    | worsened                 |
|---|--------------------------|--------------------------|--------------------------|
| in interest-based business              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| in commission business                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| in own trading of financial instruments | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
- (if only available in small quantities or not at all, please mark "remained unchanged")
- 4) In the past three months, our
- |                         | increased                | not changed              | decreased                |
|-------------------------|--------------------------|--------------------------|--------------------------|
| interest margin has     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| commissions / fees have | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
- 5) In comparison to the previous quarter and eliminating seasonal fluctuations, all our **banking services** have been used at a  
 higher rate       unchanged rate       lower rate
- 6) We appraise our current
- |   | as too small             | as appropriate           | as too large             |
|---|--------------------------|--------------------------|--------------------------|
| <b>personnel capacities</b><br>(without IT area)  |                          |                          |                          |
| for standard tasks                                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| for high skilled tasks                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| IT capacities<br>(including personnel capacities) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| space capacities                                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**LZB/ifo****Plans and expectations**

- 7) Our **business development** in the next six months will  
 be favourable       remain the same       be unfavourable
- 8) In the next six months our **personnel numbers** will  
 increase       remain the same       decrease
- 9) In the next six months and in the light of economic development, our **lending portfolio** in terms of the **financial standing of our customers** will  
 improve       remain the same       worsen
- 10) In the next six months, demand for our
- |                                       | will increase            | will stay the same       | will decrease            |
|---------------------------------------|--------------------------|--------------------------|--------------------------|
| all loans                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| consumer loans (including overdrafts) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| private mortgages                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| business loans                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
- (if you do not offer some loan segments, please mark "will remain the same")

**Special questions**

- 11) In the coming months and in light of expected loan transactions, the refinancing situation of our house will
- |                                | ease                     | remain unchanged         | tighten                  |
|--------------------------------|--------------------------|--------------------------|--------------------------|
| as a whole                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| specifically via bank deposits | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
- (if not applicable, please mark "remain unchanged")
- 12) Only for institutes with bank branches also outside of Bavaria
- In our Bavarian branch bank, a total of ca. \_\_\_\_\_ people were employed at the end of 2000.  
(Please give rounded numbers. Data are used for weighting purposes.)

**GKI**

1

**Hungarian Banking Association**  
**GKI Economic Research Co.**

### Questionnaire<sup>1</sup> for credit institutions

- 1.) How do you evaluate/expect in the business year of 2001 and in 2002 in comparison to previous year

	In 2001 it has			In 2002 it will		
	increased	stagnated	decreased	increase	stagnate	decrease
Your market share						
Profit after tax						
Dividends						

- 6.) Change in amount of loans given to your clients (enterprises)  
 Mark the change:

quick increase = 5 increase = 4 stagnate = 3 decrease = 2 quick decrease = 1

	Change of			
	0% weighted assets	Weighted assets	0% weighted assets	Weighted assets
	Until mid 2002 compared to end 2001		Until the end of 2002 compared to June 2001	
Loans of all enterprise				
of which: smallholders				

- 15.) Please, describe the movements of the processes, volumes below  
 Mark the change:

quick increase=5 increase=4 stagnate=3 decrease =2 quick decrease=1

	Compared to the previous half year		
	In 2H 2001	In 1H 2002	In 2H 2002
the business position of your bank			
the interest rates differentials			
profit from the services (according the profit-loss statement)			

---

<sup>1</sup> We made some changes in the questionnaire's structure and contents due to the changes of the information system. We also considered the opinions of the banks.

**KOF****Business Survey****Banking**KOF Swiss Institute for Business Cycle Research  
ETH Zentrum WEH, CH-8092 Zurich  
<http://www.kof.ethz.ch>Phone +41 1 632 42 39  
Fax +41 1 632 12 18  
[kof@kof.gess.ethz.ch](mailto:kof@kof.gess.ethz.ch)**Please note:**

- The questions refer to the activities of **domestic branches**.
- The **notes** are on the back of the sheet.
- Leave out any questions dealing with areas of business which do not apply to you.
- Your responses are treated **strictly confidential**.
- Please return the questionnaire by the **20th of the month**.

1. We see our <b>business situation</b> ...	good	satisfactory	poor					
... overall as	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
... with domestic clients as	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	no domestic clients			
... with foreign clients as	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	no foreign clients			
	<b>... was/were, in the quarter under report by comparison with the previous quarter,</b>			<b>... will, in the quarter which has just begun</b>				
2. <b>Demand for banking services</b> ...	much higher	higher	the same	lower	much lower	increase	stay the same	decrease
... overall	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... from domestic clients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>of which ... private clients</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... <i>corporate clients</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>of which SME</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
... from foreign clients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. <b>Profitability:</b>								
Net interest income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Net fee and commission income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>of which asset management</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Net trading income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Net trading income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gross operating income (GOI)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personnel expenses/GOI ratio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other operating expenses/GOI ratio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gross operating profit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. <b>Employment</b> full-time adjusted		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. <b>Volume</b> ...								
... of securities transactions for clients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
... of assets under management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
... of authorized loans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

Comments:

Please turn over!

**KOF**

6.	<b>Capacity:</b> We consider our ...	too high	sufficient	too low
	... IT capacity to be	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	... spatial capacity to be	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	... frontoffice staff capacity to be	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	... backoffice staff capacity to be	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	In the last months, our <b>opportunities of refinancing</b> ...	improved	remained unchanged	worsened
	... by customers funds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	... by other funds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	In the last months, our domestic <b>competitive position</b> ...			
	... in credit transaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	... in customer funds transaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	... in asset management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	In the last months, the <b>credit rating</b> ...			
	... of our domestic borrowers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>of which ... private clients</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>... corporate clients</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>of which SME</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	... of our foreign borrowers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	In the quarter which has just begun, <b>loans</b> ...	will increase	remain unchanged	will decrease
	... to domestic clients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>of which ... private clients</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>... corporate clients</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<i>of which SME</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	... to foreign clients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	In the quarter which has just begun, we expect ...			
	... our <b>interest margins</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	... our <b>commission rates</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	After the end of the quarter which has just begun, ...	increase	remain unchanged	worsen
	... <b>business will</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Notes**

Business surveys ask firms to estimate their own past and future business position. The results of business surveys give projections of economic trends and in particular of cyclical changes earlier than do official statistics. For the purpose of delimiting the domestic financial market, answers should relate only to the activities of domestic branches.

The paragraph „Comments“ is reserved for general descriptions of the situation, notes about special business conditions etc. Occasionally we will use this paragraph for additional questions.

Your answers are treated strictly confidential. The results don't allow conclusions to individual firms. The KOF ETH Zurich is governed by the Swiss Federal Law of Statistics..

**The questions**

- Your assessment of the business situation should primarily take account of performance factors. Other criteria such as volume of business, market share, etc. may also be considered.
- To assess changes in demand, you can take account of income from the specific client groups (overall, domestic and foreign, private and corporate of which SME) or of the corresponding transaction volumes. Corporate clients are firms which are recognized as independent legal entities and quasi-corporate enterprises (characteristic: own accounting). Small and medium enterprises (SME) are firms with less than 250 employees. (\*)
- The profit, cost/profit ratios and net earnings asked for refer to the corresponding entries in the income statement. Additionally we ask for net earnings in asset management. Gross operating

income includes all (net) income, being part of the gross operating profit. (\*)

- The assessment of changes in employment should be based as far as possible on full-time equivalents. (\*)
- This question refers to individual production-like volumes of banking transactions. Authorized loans include secured and non-secured loans. (\*)
- As regards operational capacity, you are asked to give a breakdown by information technology and telecommunications capacity (IT), on the one hand, and by space, on the other. As regards human resource capacity, you are asked to distinguish between front- and back-office staff.
- The question to refinancing opportunities distinguishes between customers funds and other funds (Interbank loans, etc.).
- The competitive position is to be judged with regard to the banking services on offer. Competitors do not include banks only, but all financial service providers.
- This question aims at the change of credit rating in the portfolio of loans.
- 10.– 12. We ask here for a current assessment of short and medium-term evolution. Concerning the development of loans, please consider secured and non-secured loans.

(\*) For extraordinary changes, please use the additional options ("much higher" or "much lower"). Please give your actual assessment of evolution in the quarter which has just begun.



**KOF**

## Business Survey

### Insurance

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**Please note:**

- The questions refer to the activities of **domestic branches**.
- The **notes** are on the back of the sheet.
- Leave out any questions dealing with areas of business which do not apply to you.
- Your responses are treated **strictly confidential**.
- Please return the questionnaire by the **20th of the month**.

1. We see our <b>business situation</b>	good	satisfactory	poor	no business activity
<b>Non-life business</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Accident and health insurance</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Motor vehicle insurance</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>General liability insurance</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Property insurance</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Other insurance</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Life business</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Individual insurance</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Group life insurance</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Funds related life insurance</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. <b>Demand for insurance services ...</b>	<b>... was/were, in the quarter under report by comparison with the previous quarter, (*)</b>					<b>... will, in the quarter which has just begun, (*)</b>		
	much higher	higher	the same	lower	much lower	increase	stay the same	decrease
<b>Non-life business</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"/>
<i>Accident and health insurance</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Motor vehicle insurance</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>General liability insurance</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Property insurance</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Other insurance</i>	<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>Life business</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"/>
<i>Individual insurance</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Group life insurance</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Funds related life insurance</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. <b>Employment</b> full-time adjusted ...						
<b>Non-life business</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Life business</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. We consider our <b>staff capacity</b>	too high	sufficient	too low
<b>Non-life business</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Life business</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

(\*) Excluding seasonal Variations

Please turn over!

**KOF**

5. Result by Year to year-comparison:	... was/were, in the quarter under report by comparison with same quarter of last year,					... will, in the quarter which has just begun,		
	much higher	higher	the same	lower	much lower	increase	stay the same	decrease
<b>Non-life business</b>								
Booked premium (gross)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Payable claims (gross)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Net investment income	<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>Life business</b>								
Booked premium (gross)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Payable claims (gross)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Net investment income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Result by Quarter to Quarter-comparison	... was/were, in the quarter under report by comparison with the previous quarter,					... will, in the quarter which has just begun,		
	much higher	higher	the same	lower	much lower	increase	stay the same	decrease
<b>Non-life business</b>								
Earned premium (gross)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Payable claims (gross)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Loss ratio (gross)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expense ratio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Net investment income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ordinary Result (with tax)	<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>Life business</b>								
Earned premium (gross)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Payable claims (gross)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Technical reserves	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expense ratio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Net investment income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ordinary Result (with tax)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Other Indicators:	Non-life business					Life business		
	much higher	higher	the same	lower	much lower	increase	stay the same	decrease
Premium tariff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of contracts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Premium rate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of contracts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. After the end of the quarter which has just begun, business will ...	improve			remain unchanged			worsen		
	much higher	higher	the same	lower	much lower	increase	stay the same	decrease	
<b>Non-life business</b>									
<input type="checkbox"/>									
<b>Life business</b>									
<input type="checkbox"/>									

**Notes**

Business surveys ask firms to estimate their own past and future business position. For the purpose of delimiting the domestic financial market, answers should relate only to the activities of domestic branches.

Your answers are treated strictly confidential. The results don't allow conclusions to individual firms. The KOF ETH Zurich is governed by the Swiss Federal Law of Statistics.

**The questions**

- Your assessment of the business situation should primarily take account of performance factors. Other criteria such as volume of business, market share, etc. may also be considered.
- To assess changes in demand, you can take account of evolution of the premium earned. (\*\*)
- The assessment of changes in employment should be based as far as possible on full-time equivalents.
- You are asked to assess the actual staff capacity.

5. You are asked for a year-to-year comparison of the evolution of gross premiums, gross claims and investment income. Net investment income includes realised results only. (\*\*)

6. Please indicate the results for premiums earned and payable claims in „gross“ terms. The loss ratio (or expense ratio) is the ratio of gross payable claims (or expenses) to gross premium earned. (\*\*)

7. The other indicators ask for the evolution of prices and contracts. (\*\*)

8. We ask here for a current assessment of mid-term business evolution.

(\*\*) For extraordinary changes, please use the additional options (much higher or much lower). Please give your actual assessment of evolution in the quarter which has just begun.

**NZIER**

**CONFIDENTIAL**  
**SURVEY OF BUSINESS OPINION**

N.Z. INSTITUTE OF ECONOMIC RESEARCH (INC.)  
P O BOX 3479 WELLINGTON

No.: 151

Quarter Ending: December 1998

**SERVICES**

% of 184 replies

1 In which ONE of the following activities is your firm PRINCIPALLY engaged?

<b>FINANCIAL SERVICES</b>		<b>CUSTOMER SERVICES</b>	
Assurance & Insurance	5	Equipment hire	1
Auctioneer & Agency	3	Cleaning	2
Banking & Finance	8	Advertising & Public Relations	1
		Vehicle Repair & Maintenance	2
<b>PROFESSIONAL SERVICES</b>		<b>RESTAURANTS/HOTELS</b>	
Accounting & Secretarial	12	Accommodation	2
Legal	9	Eating & Drinking Places	4
<b>TRANSPORT</b>		<b>OTHER</b>	
Passengers	6	Mainly Business	24
Goods	15	Mainly Personal	5

2 How many EMPLOYEES are covered by this return?

	1-20	21-50	51-100	101-200	201-500	Over 500
	30	16	9	8	20	17

3 In which district is the MAIN VOLUME OF BUSINESS to which this return relates?

	Waikato	Wellington							
	Auckland	Bay of Plenty	Hawke's Bay	Taranaki	Manawatu	Nelson	Canterbury	Otago	Spread over
	Northland	East Cape	Wanganui	Wairarapa	West Coast	Marlborough	Southland	NZ	
	27	6	4	4	10	2	10	8	29

4 Do you consider that the general business situation in New Zealand will improve, remain the same, or deteriorate during the NEXT SIX MONTHS?

	Improve	Same	Deteriorate	N/A
	35	49	15	0

In general, do you find that getting the STAFF YOU WANT TODAY is easier, the same, or harder than it was THREE MONTHS AGO?

5 Skilled; Specialist	Easier	11	Same	62	Harder	17	N/A	10
6 Unskilled; Semi-skilled		22		58		4		16

7 What SINGLE factor, if any, is most limiting your ability to increase turnover? Shortage of.....

	Demand	Supplies	Finance	Labour	Capacity	Other
	74	1	10	6	3	6

8 Do you expect the interest rates charged on loans to your clients/customers during the NEXT TWELVE MONTHS to be greater/same/less than that approved during the PAST TWELVE MONTHS

	Greater	Same	Less	N/A
	13	31	38	18

Do you expect the amount of new investment approved for your firm during the NEXT TWELVE MONTHS to be greater/same/less than that approved during the PAST TWELVE MONTHS?

9 ...on Buildings	Greater	14	Same	36	Less	21	N/A	30
10 ...on Plant, Machinery, Business Equipment		32		36		24		8

**PAST AND FUTURE TRENDS**

What has been your firm's experience during the PAST THREE MONTHS and what changes do you expect during the NEXT THREE MONTHS in respect of the following (exclude seasonal variations by comparing three month period with the same period a year earlier):

Experienced change PAST three months				Expected change NEXT three months				
1	2	3	4	1	2	3	4	
Up	Same	Down	N/A	Up	Same	Down	N/A	
19	53	27	1	11	19	57	24	1
17	44	23	16	12	13	50	21	16
11	59	21	10	13	5	71	16	7
14	70	16	1	14	14	74	11	1
6	62	30	2	15	12	72	14	2
22	33	44	1	16	29	47	23	1
23	41	35	1	17	33	46	20	1

**PUE****Business Tendency Survey in Banking Sector in Poland**Questionnaire designed by Department of Marketing Research,  
Poznan University of Economics**I. General Assessment of Situation:**

1. The financial situation of your bank in the last quarter in comparison to the same period last year has:

- 1 significantly improved  
 2 slightly improved  
 3 remained the same  
 4 slightly worsened  
 5 significantly worsened

2. Total number of services in your bank in the last quarter in comparison to the same period last year have:

- 1 significantly increased  
 2 slightly increased  
 3 remained the same  
 4 slightly decreased  
 5 significantly decreased

3. Number of customers in your bank in the last quarter in comparison to the same period last year have:

- Total   
 Persons   
 Corporates

- 1 significantly increased  
 2 slightly increased  
 3 remained the same  
 4 slightly decreased  
 5 significantly decreased

4. Please evaluate changes in the following value indicators:

	In the last quarter in comparison to the same period last year has	In the last quarter in comparison to the previous quarter
Total value of deposits	<input type="checkbox"/>	<input type="checkbox"/>
Total value of loans	<input type="checkbox"/>	<input type="checkbox"/>
Total value of doubtful and loss loans	<input type="checkbox"/>	<input type="checkbox"/>

- 1 significantly increased  
 2 slightly increased  
 3 remained the same  
 4 slightly decreased  
 5 significantly decreased

5. Please evaluate changes in the following bank performance indicators:

	In the last quarter in comparison to the same period last year	In the next quarter in comparison to the same period last year
Core capital	<input type="checkbox"/>	<input type="checkbox"/>
Net earnings	<input type="checkbox"/>	<input type="checkbox"/>
ROE	<input type="checkbox"/>	<input type="checkbox"/>
ROA	<input type="checkbox"/>	<input type="checkbox"/>

- 1 significant increase  
 2 slight increase  
 3 no change  
 4 slight decrease  
 5 significant decrease

**PUE**

**II. Detailed Assessment of Situation**

1. Please evaluate changes in the following banking services:

Services	In the last quarter in comparison to the same period last year		In the next quarter in comparison to the same period last year	
	Value	Interest Rate	Value	Interest Rate
<b>Deposits</b>				
<b>Zloty deposits (total)</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Demand deposits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Time deposits (to 3 months)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Time deposits (4-12 months)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Time deposits (over 12 months)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Foreign currency deposits tot.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Time deposits (to 3 months)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Time deposits (4-12 months)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Time deposits (over 12 months)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Loans and other services</b>	Value	Interest Rate/Fees	Value	Interest Rate/Fees
<b>Zloty loans</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Consumer loans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Current loans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Investment loans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Foreign currency loans</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other banking services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Current accounts for persons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Current accounts for corporates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Foreign banking operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leasing services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Internet services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 1 significant increase
- 2 slight increase
- 3 no change
- 4 slight decrease
- 5 significant decrease

**III. Special questions**

*Varying subjects and questions. For example marketing activity of the banks, current events in the banking sector, long-term quantitative forecasts etc.*

**IV. Bank's characteristics**

1. Equity capital

- 1 State Treasury
- 2 private domestic entities
- 3 foreign entities
- 4 cooperative banks

2. Number of the employees .....

3. Present value of core capital (in mln PLN) .....

4. Net earnings in the previous year (in mln PLN) .....

	5. Please evaluate current situation in comparison to the same period last year	6. Please make forecast of the situation within the next year
a) your own material situation	<input type="checkbox"/>	<input type="checkbox"/>
b) economic situation in the country	<input type="checkbox"/>	<input type="checkbox"/>
c) economic situation in the banking sector	<input type="checkbox"/>	<input type="checkbox"/>

- 1 significant improvement
- 2 slight improvement
- 3 no change
- 4 slight worsening
- 5 significant worsening

## Appendix 2 Factor Analysis of CBI/PwC Data<sup>1</sup>

In Chapter 3.3, the CBI/PwC FSS data has been analysed concerning the lead/lag structure of the series and thereby revealing a generally low forecasting ability in the financial sector. To gain more insight into the internal structure of the CBI/PwC FSS data series, the data will be analysed by factor analysis, a standard tool for data reduction. This appendix contains the detailed analysis, presented by figures and tables. The conclusions are, however, stated in Chapter 3.4.

The factor analysis is generally used for cross section data analysis. With time series data, the autocorrelations of the series – the series are indeed autocorrelated – may lead to non-orthogonal factors for leading and lagging correlations, because the method calculates orthogonal factors for the contemporaneous correlations only.

Firstly, drawing on the analyses of the cross correlations in Chapter 3, the series which result from the questionnaire are divided into two groups, one referring to the past, and another one referring to the future.

The resulting past related sub-group comprises the following 18 series<sup>2</sup>:

O_2A	O_2B	O_3A_P	O_3B_P	O_3C_P	
O_4A_P	O_4B_P	O_4C_P	O_4D_P		
O_5A_P	O_5B_P	O_5C_P	O_5D_P	O_5E_P	O_5H_P
O_6A_P	O_6B_P	O_6C_P			

The future related subgroup comprises the remaining items from the questionnaire with the exception of O\_11I\_O and O\_11I\_P, which have no defined references and are therefore dropped from this step of analysis.

The question on the optimism for the business situation is of a special character. Optimism is future oriented and therefore the question could adequately be formulated as the expected evolution of the business situation.<sup>3</sup> The question is therefore added to the future related subgroup.

The 33 series of this sub-group are thus:

O_1	O_3A_F	O_3B_F	O_3C_F		
O_4A_F	O_4B_F	O_4C_F	O_4D_F		
O_5A_F	O_5B_F	O_5C_F	O_5D_F	O_5E_F	O_5H_F
O_6A_F	O_6B_F	O_6C_F			
O_11A_T	O_11A_O	O_11B_T	O_11B_O	O_11C_T	O_11C_O
O_11D_T	O_11D_O	O_11E_T	O_11E_O	O_11F_T	O_11F_O
O_11G_T	O_11G_O	O_11H_T	O_11H_O		

<sup>1</sup> We gratefully thank Michael Graff for the data analysis and his substantial contribution to the interpretation.

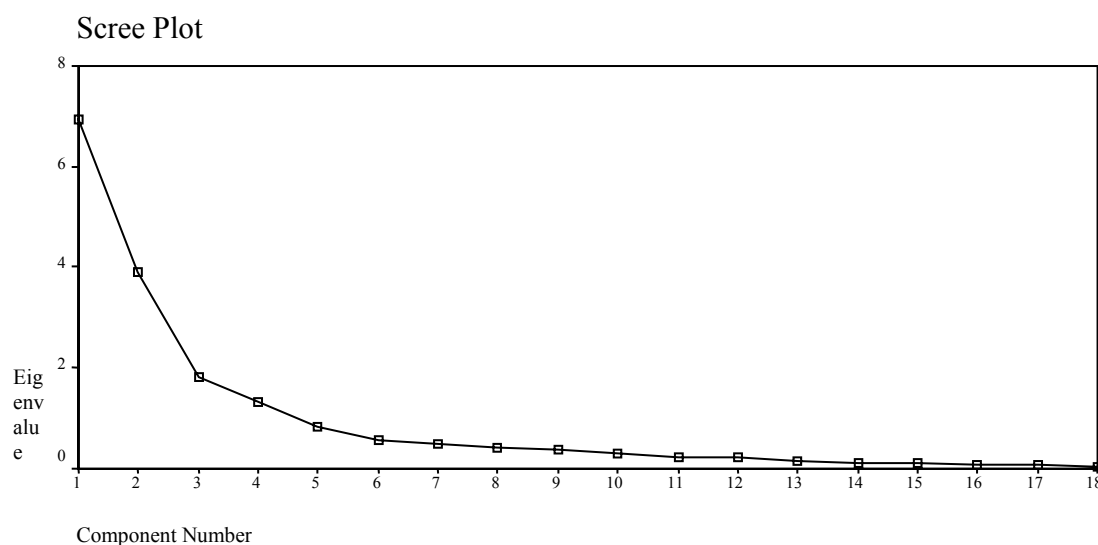
<sup>2</sup> see Table 3.1

<sup>3</sup> Similar to the expected evolution of the business situation is the expected change of the business situation. The CBI asks the respondent whether he/she is more, same or less optimistic about the business situation than three months ago. This type of question is effectively asking a “change” of the expected change in the business situation.

### Principal Component Analysis: Past Related Group

First, the group referring to the past is screened for the number of principal components to be obtained when applying the standard eigenvalue > 1 criterion for data exploration. The result is given in the table and the scree plot reproduced below.

Component	Original Series		
	Eigenvalue	% of Variance	Cumulative %
1	6.941	38.563	38.563
2	3.911	21.728	60.291
3	1.822	10.122	70.413
4	1.314	7.300	77.713



A look at the scree plot visualises that, beginning with the fourth component, the marginal gain in explained variance is relatively low. In addition, it is very difficult to attach any meaningful interpretation to the potential fourth component (not reproduced here), so that we fix the number of principal components to be extracted from this data corpus to three, which will reproduce roughly 70% of overall variance, and re-run the analysis.

The following tables show the communalities from the tree factor solution and the varimax rotated loadings matrix.

Original Series			
Series	Communalities	Series	Communalities
O_2A	.860	O_5A_P	.764
O_2B	.844	O_5B_P	.580
O_3A_P	.884	O_5C_P	.507
O_3B_P	.752	O_5D_P	.616
O_3C_P	.677	O_5E_P	.735
O_4A_P	.672	O_5H_P	.737
O_4B_P	.636	O_6A_P	.835
O_4C_P	.724	O_6B_P	.368
O_4D_P	.615	O_6C_P	.870

All communalities are high ( $> .5$ ) with the exception of series O\_6B\_P, which consequently fails to load high on any of the extracted components.

Hence, as a first conclusion, it is justified to state that question 6B (training expenditure) captures unique information (whether useful or not).

A closer inspection of the rotated loadings matrix (where, to facilitate interpretation, all loadings with an absolute score  $< .5$  are suppressed) reveals that 13 out of the 18 series are associated with one component only, 4 are associated with two components, and, as mentioned above, series O\_6B\_P fails to associate with any of the extracted components.

Regarding the interpretation of the components, it is rather obvious that component No. 1 captures "information on output", component No. 2 "information on inputs", and component No. 3 "information on credit risk".

### Rotated Component Matrix (Original Series)

	Component			
	1	2	3	
O_3A_P	.855			Volume of Business (VoB)
O_3B_P	.830			Value of fee, commission or premium income
O_3C_P	.802			Value of net interest, investment or trading income
O_4C_P	.797			VoB, Private individuals
O_4B_P	.789			VoB, Financial institutions
O_4D_P	.781			VoB, Overseas customers
O_5H_P	.736			Overall profitability of business
O_5B_P	.518			Average commissions/fees/premiums
O_2B	.731	.522		Level of business, overseas customers
O_5D_P	-.550	.545		Average operating costs per transaction
O_2A	.653	.656		Level of business, domestic customers
O_6C_P		.907		Staff costs as a proportion of total costs
O_6A_P		.845		Numbers employed
O_5C_P		.670		Total operating costs (excl. cost of funds)
O_4A_P	.536		.580	VoB, Industrial & commercial companies
O_5E_P			-.850	Value of non-performing loans
O_5A_P			-.822	Average spreads
O_6B_P				Training expenditure

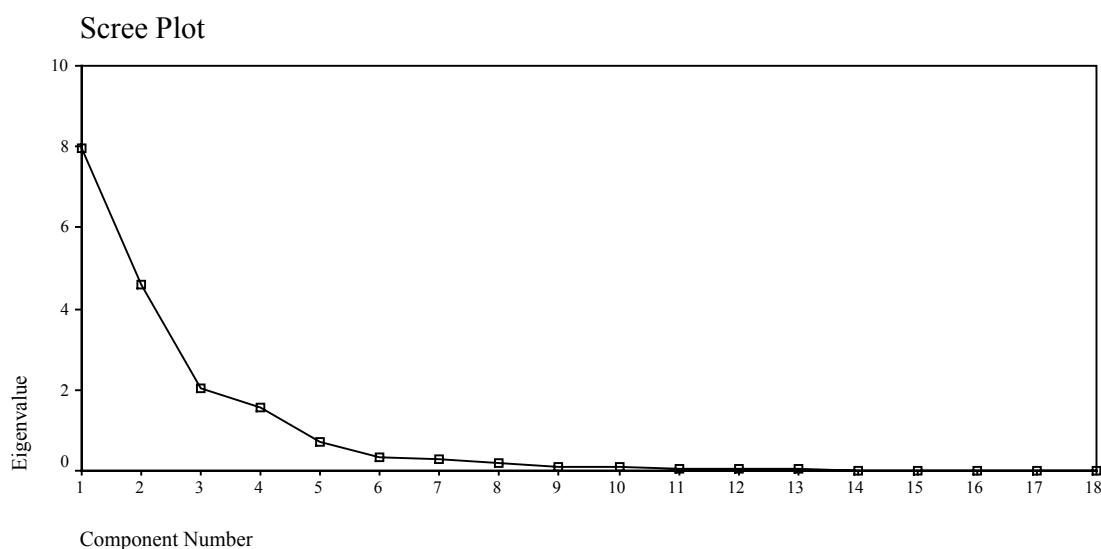
However, before taking this "3+1" structure (three components plus one single series) within the "past" subgroup of series for granted, we take a look at the corresponding trend-cycle transformations, which, due to the elimination of stochastic elements, might give a better understanding of the data set.

Component	Filtered (Trend-Cycle) Series		
	Eigenvalue	% of Variance	Cumulative %
1	7.949	44.161	44.161
2	4.612	25.621	69.782
3	2.082	11.266	81.049
4	1.549	8.608	89.656



As with the original series, the standard extraction criterion results in four components, but a look at the scree plot (see below) makes it clear that the profile is beginning to get rather flat after the third component. Moreover, the elimination of noise increases the intercorrelation within this data corpus, so that the cumulative explained variance amounts to over 80% with three components only. Hence, we shall again restrict the number of components to three.

An inspection of the final communalities (see below) adds further confidence to our analysis. As with the original series, with the exception of series O\_6B\_P, all communalities are higher than 50%.



Filtered (Trend-Cycle) Series			
Series	Communalities	Series	Communalities
trend-cycle O_2A	.869	trend-cycle O_5A_P	.886
trend-cycle O_2B	.939	trend-cycle O_5B_P	.775
trend-cycle O_3A_P	.931	trend-cycle O_5C_P	.655
trend-cycle O_3B_P	.875	trend-cycle O_5D_P	.737
trend-cycle O_3C_P	.781	trend-cycle O_5E_P	.736
trend-cycle O_4A_P	.840	trend-cycle O_5H_P	.824
trend-cycle O_4B_P	.936	trend-cycle O_6B_P	.411
trend-cycle O_4C_P	.835	trend-cycle O_6A_P	.869
trend-cycle O_4D_P	.715	trend-cycle O_6C_P	.977

**Rotated Component Matrix (Trend-Cycle Series)**

	Component			
	1	2	3	
O_4B_P	.946			VoB, Financial institutions
O_3B_P	.882			Value of fee, commission or premium income
O_3C_P	.875			Value of net interest, investment or trading income
O_4C_P	.848			VoB, Private individuals
O_4D_P	.841			VoB, Overseas customers
O_3A_P	.837			Volume of business
O_5H_P	.825			Overall profitability of business
O_2B	.698	.641		Level of business, overseas customers
O_5D_P	-.630	.548		Average operating costs per transaction
O_2A	.593	.716		Level of business, domestic customers
O_6C_P		.947		Staff costs as a proportion of total costs
O_6A_P		.860		Numbers employed
O_5C_P		.756		Total operating costs (excl. cost of funds)
O_4A_P	.531		.661	VoB, Industrial & commercial companies
O_5A_P			-.861	Average spreads
O_5E_P			-.850	Value of non-performing loans
O_5B_P			-.682	Average commissions/fees/premiums
O_6B_P				Training expenditure

The comparison of the rotated loadings matrix for the trend-cycle transformed series compared with the original series (see above; again, to facilitate interpretation, all loadings with an absolute score < .5 are suppressed) shows some changes in the ranking of loadings, i.e. the correlations of the series with "their" components, but the overall "3+1" picture remains remarkably intact:

- the same 13 series are associated with one component only, and the same 4 series are associated with two components
- again, series O\_6B\_P fails to associate with any of the extracted components,
- the original and the filtered series are generally associated with the same components. The only one exception is series O\_5B\_P, which now correlates highly (.68) with component No. 3, whereas the original series was correlated (.52) with component No. 1.

Turning to the interpretation of the modified results from the filtered series, it is obvious that the labelling of the components from the first analysis with the original series can be maintained; if anything, the only substantial change in the correlation pattern (the shift of series O\_5B\_P from component No. 1 ("information on output") to component No. 3 ("information on credit risk") might result in a slight re-interpretation of component No. 3, since average commissions, fees and premiums (question 5B) are not closely related to credit risk but more to general risk.

Moreover, the correlation between the components extracted from the original and from the filtered series is very high (at least > .9 for all three components, see table below), i.e., whether we filter the data or not, we are obviously dealing with the same underlying structure.

### Pearson's Correlation Coefficients

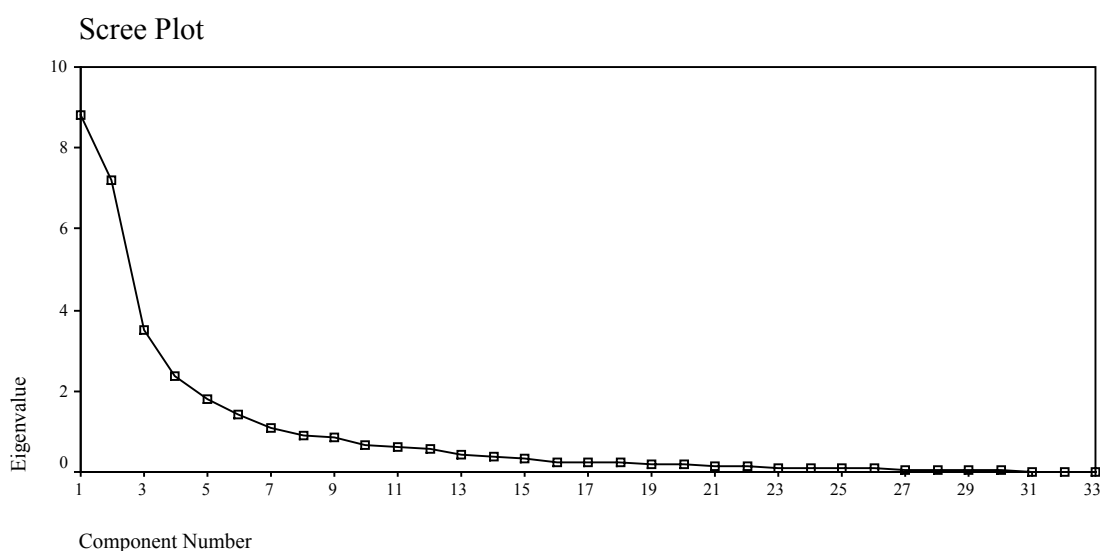
component 1	(original)	with	component 1	(trend-cycle)	.92
component 2	(original)	with	component 2	(trend-cycle)	.94
component 3	(original)	with	component 3	(trend-cycle)	.96

To sum up, this step of analysis has shown that, within the past related series, there are three underlying dimensions that dominate 70-80% of the overall variance in the data. These dimensions are quantified as principal components, and the subsets of series which correlate highly with these dimensions is remarkably robust to adjustments (noise filtering) of the data. Finally, within this framework, "core questions" can be identified as the ones that load high on single components.

### Principal Component Analysis: Future Related Group

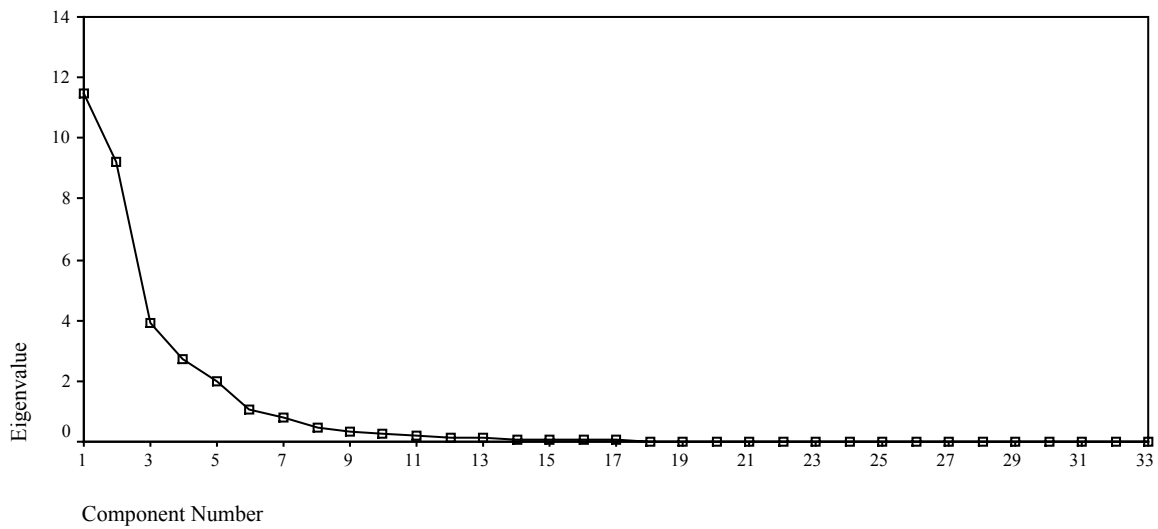
First, as above with respect to the past referring items, now the group of series referring to the future is screened for the number of principal component to be obtained when applying the standard eigenvalue > 1 criterion for data exploration. The results - first for the original and then for the filtered series - are given in the tables and the scree plots reproduced below.

Original Series			
Component	Eigenvalue	% of Variance	Cumulative %
1	8.835	26.772	26.772
2	7.199	21.816	48.588
3	3.518	10.660	59.249
4	2.380	7.212	66.461
5	1.784	5.405	71.866
6	1.418	4.297	76.164
7	1.085	3.288	79.452



Filtered (Trend-Cycle) Series			
Component	Eigenvalue	% of Variance	Cumulative %
1	11.473	34.767	34.767
2	9.195	27.864	62.631
3	3.942	11.945	74.576
4	2.734	8.285	82.861
5	2.000	6.060	88.920
6	1.031	3.125	92.045

Scree Plot



As can be seen from the tables and plots above, the default extraction criteria would amount to seven (original) and six (filtered series) principal components.

After inspection of the scree plots, however we restrict the number of components for analysis within the present related sub-set of series to four, which explain 66% of total variance of the original and 83% of the filtered series.

The following tables show the communalities from the four factor solution and the varimax rotated loadings matrix.

Series	Original Series		Communalities
	Communalities	Series	
O_1	.706	O_11A_T	.618
O_3A_F	.852	O_11A_O	.470
O_3B_F	.781	O_11B_T	.704
O_3C_F	.572	O_11B_O	.657
O_4A_F	.757	O_11C_T	.742
O_4B_F	.698	O_11C_O	.882
O_4C_F	.770	O_11D_T	.557
O_4D_F	.531	O_11D_O	.735
O_5A_F	.285	O_11E_T	.674
O_5B_F	.709	O_11E_O	.757
O_5C_F	.741	O_11F_T	.563
O_5D_F	.666	O_11F_O	.569
O_5E_F	.568	O_11G_T	.710
O_5H_F	.757	O_11G_O	.479
O_6A_F	.844	O_11H_T	.355
O_6B_F	.647	O_11H_O	.783
O_6C_F	.791		

Low communalities for series O\_5A\_F, O\_11A\_O, O\_11G\_O, and O\_11H\_T imply that these series stand for something distinctive from the rest of the presence referring series.

**Rotated Component Matrix (Original Series)**

	Component				
	1	2	3	4	
O_11C_O	.931				Limits, Availability of clerical staff
O_11H_O	.882				Limits, Statutory legislation
O_11D_O	.845				Limits, Adequacy of systems capacity
O_11E_O	.842				Limits, Ability to raise funds
O_11C_T	.829				Limits, Availability of clerical staff
O_11G_T	.787				Limits, Competition - Overseas
O_11B_O	.758				Limits, Availability of professional staff
O_11F_O	.729				Limits, Competition - Domestic
O_11B_T	.715				Limits, Availability of professional staff
O_11D_T	.569				Limits, Adequacy of systems capacity
O_11H_T	.519				Limits, Statutory legislation
O_11G_O	.501				Limits, Competition - Overseas
O_11A_T	-.515		-.517		Limits of Business, Level of demand
O_5C_F			.816		Total operating costs (excl. cost of funds)
O_6A_F			.807		Numbers employed
O_6C_F			.762		Staff costs as a proportion of total costs
O_6B_F			.748		Training expenditure
O_11A_O			-.558		Limits of Business, Level of demand
O_3A_F		.865			Volume of Business (VoB)
O_5H_F		.846			Overall profitability of business
O_1		.829			Business situation, optimism
O_3B_F		.822			Value of fee, commission or premium income
O_4C_F		.810			VoB, Private individuals
O_4B_F		.806			VoB, Financial institutions
O_4D_F		.705			VoB, Overseas customers
O_5D_F		-.652			Average operating costs per transaction
O_3C_F		.628			Value of net interest, investment or trading income
O_11F_T		.542			Limits, Competition - Domestic
O_4A_F		.651		.571	VoB, Industrial & commercial companies
O_5B_F				-.707	Average commissions/fees/premiums
O_11E_T				-.593	Limits, Ability to raise funds
O_5E_F				-.540	Value of non-performing loans
O_5A_F				-.504	Average spreads

A closer inspection of the rotated loadings matrix (where, to facilitate interpretation, all loadings with an absolute score < .5 are suppressed) reveals that 31 out of the 34 series are associated with one component only and 3 are associated with two components. Other than for the “past related group”, there is no series which fails to associate with an extracted component.

Regarding the interpretation of the components, component No. 1 captures “information on limits of business”, component No. 2 “information on output”, component No.3 “information on inputs”, and component No. 4 “information on risk”. The block of series newly introduced in the present related group are the limits of production (O\_11A to O\_11H, both total and overseas). The rotated components show, that the information content of the limits of business are different to other series of the present related group, since they mostly load (>|.5|) to a single factor only. The exceptions are O\_11A\_O, O\_11A\_T (Limits, Level of demand), O\_11F\_T (Limits, Competition domestic, total) and O\_11E\_T (Limits, Ability to raise funds, overseas).

As in the "past" subgroup of series, we take a look at the corresponding trend-cycle transformations, which , due to the elimination of stochastic elements, might give a better understanding of the data set.

Filtered (Trend-Cycle) Series			
Series	Communalities	Series	Communalities
trend-cycle O_1	.790	trend-cycle O_11A_T	.729
trend-cycle O_3A_F	.962	trend-cycle O_11A_O	.614
trend-cycle O_3B_F	.958	trend-cycle O_11B_T	.903
trend-cycle O_3C_F	.769	trend-cycle O_11B_O	.792
trend-cycle O_4A_F	.883	trend-cycle O_11C_T	.899
trend-cycle O_4B_F	.876	trend-cycle O_11C_O	.975
trend-cycle O_4C_F	.967	trend-cycle O_11D_T	.764
trend-cycle O_4D_F	.727	trend-cycle O_11D_O	.855
trend-cycle O_5A_F	.602	trend-cycle O_11E_T	.841
trend-cycle O_5B_F	.833	trend-cycle O_11E_O	.929
trend-cycle O_5C_F	.901	trend-cycle O_11F_T	.856
trend-cycle O_5D_F	.898	trend-cycle O_11F_O	.774
trend-cycle O_5E_F	.758	trend-cycle O_11G_T	.893
trend-cycle O_5H_F	.913	trend-cycle O_11G_O	.581
trend-cycle O_6A_F	.962	trend-cycle O_11H_T	.468
trend-cycle O_6B_F	.845	trend-cycle O_11H_O	.888
trend-cycle O_6C_F	.938		

**Rotated Component Matrix (Trend-Cycle Series)**

	Component				
	1	2	3	4	
O_11C_O	.969				Limits, Availability of clerical staff
O_11H_O	.932				Limits, Statutory legislation
O_11C_T	.932				Limits, Availability of clerical staff
O_11D_O	.902				Limits, Adequacy of systems capacity
O_11G_T	.873				Limits, Competition – Overseas
O_11E_O	.871				Limits, Ability to raise funds
O_11B_T	.849				Limits, Availability of professional staff
O_11F_O	.846				Limits, Competition – Domestic
O_11B_O	.765				Limits, Availability of professional staff
O_11A_T	-.760				Limits of Business, Level of demand
O_11D_T	.705				Limits, Adequacy of systems capacity
O_5E_F	.644				Value of non-performing loans
O_11H_T	.586				Limits, Statutory legislation
O_6C_F	.697		.632		Staff costs as a proportion of total costs
O_6A_F	.638		.740		Numbers employed
O_5D_F		-.792	.514		Average operating costs per transaction
O_3C_F		.536	.652		Value of net interest, investment or trading income
O_3A_F		.939			Volume of Business (VoB)
O_5H_F		.907			Overall profitability of business
O_4B_F		.901			VoB, Financial institutions
O_4C_F		.889			VoB, Private individuals
O_1		.853			Business situation, optimism
O_3B_F		.839			Value of fee, commission or premium income
O_4D_F		.788			VoB, Overseas customers
O_4A_F		.730		.508	VoB, Industrial & commercial companies
O_11E_T		.537		-.665	Limits, Ability to raise funds
O_11F_T		.638		.652	Limits, Competition – Domestic
O_5B_F				-.811	Average commissions/fees/premiums
O_5A_F				-.679	Average spreads
O_11G_O				.660	Limits, Competition – Overseas
O_6B_F			.902		Training expenditure
O_5C_F			.814		Total operating costs (excl. cost of funds)
O_11A_O			-.671		Limits of Business, Level of demand

The comparison of the rotated loadings matrix for the trend-cycle transformed series compared with the original series (see above; again, to facilitate interpretation, all loadings with an absolute score < .5 are suppressed) shows several changes in the ranking of loadings, i.e. the correlations of the series with "their" components, but the overall picture of 4 components remains without major changes:

- for 23 series the original and the filtered series are associated with the same No. of the component, and one variable (O\_4A\_F) is associated with the same two components.
- two series exchanged the No. of the component associated: (O\_5E\_F from No. 4 to 1, O\_11G\_O from No. 1 to 4), i.e. the expected value of non-performing loans is related to the limits of business.
- 6 series are associated with two instead of one component (the component of the original series and one further component)



- one series is associated with one instead of two components (O\_11A\_T from No. 1 and 3 to 1)
- again, no series fails to associate with any of the extracted components

The component No. 1 includes most of the series under the label “information on limits of business”. Component No. 2 captures “information on output” and component No. 3 captures “information on inputs”. The component No. 4 includes “information on risk and competition”. The labelling of the components from the analysis with the original series can be maintained.

Similar to the analysis with the original series the rotated components for the filtered series show, that the information content of the limits of business is different to other series of the present related group, since they mostly load (with weights > |.5|) to a single factor only.

Finally, the correlation between the components extracted from the original and from the filtered series is very high (at least > .85 for all four components, see table below).

#### **Pearson's Correlation Coefficients**

component 1	(original)	with	component 1	(trend-cycle)	.84
component 2	(original)	with	component 2	(trend-cycle)	.90
component 3	(original)	with	component 3	(trend-cycle)	.88
component 4	(original)	with	component 4	(trend-cycle)	.87