



CENTRAL BANK OF CYPRUS

EUROSYSTEM

Description of the Bank Lending Survey Methodology

The Eurosystem has been conducting the Bank Lending Survey (BLS) since 2003, which is a qualitative survey for the assessment of credit conditions in the euro area. The survey is conducted on a quarterly basis and its main objective is to improve the Eurosystem's knowledge of financing conditions in the euro area. This facilitates the Governing Council of the ECB in evaluating monetary and economic developments in the euro area during the monetary policy decision-making process and, in general, euro area economic analysts.

The survey supplements existing quantitative data on interest rates and bank credit, providing additional information on non-interest rate terms and conditions applied to loans and credit lines as well as on various factors affecting the demand for loans in the euro area. The survey is addressed to senior loan officers in a representative sample of euro area banks. At the moment, the sample group of banks participating in the survey comprises of around 150 banks from all euro area countries and takes into account the characteristics of their respective national banking structures in order to ensure the best possible sample representation.

The questionnaire for the BLS covers a broad area of relevant subjects, such as credit standards, credit terms and conditions as applied to the approval of loans, as well as banks' assessment of the conditions affecting credit demand. The revised, as from April 2015, questionnaire consists of 22 standard questions and is divided into two parts. The first part contains 9 questions on loans or credit lines to enterprises while the second part contains 13 questions on loans to households. With respect to households, the questions distinguish between (a) loans for house purchase and (b) consumer credit and other lending. The questionnaire also includes an "open-ended" question, which refers to any other important issues affecting bank lending behaviour which have not been covered by the previous questions. In addition, the questionnaire may contain small number of ad hoc questions on topics of specific interest, such as developments in the financial markets and their impact on banks' lending and credit lines.

In order for the questionnaire to capture both actual and expected developments in credit markets, 18 out of the 22 questions are backward-looking, stated in terms of changes over the past three months, and 4 are forward-looking, relating to expectations of changes over the next three months.

For every question, the participating banks may choose among five possible answers. With respect to the questions on credit standards, the possible answers are: "tightened considerably", "tightened somewhat", "remained basically unchanged", "eased somewhat" and "eased considerably". With respect to questions on the demand for loans or credit lines, the equivalent possible answers are: "decreased considerably", "decreased somewhat", "remained basically unchanged", "increased somewhat" and "increased considerably".

The results of the survey are published by the ECB and are aggregated at the euro area level using different country weights which, however, do not account for the size of the participating banks in each country. These weights, which are updated every quarter, are the national shares in the total amount of the euro area outstanding loans to euro area residents, taking into account loans to non-financial corporations and households only. The ECB publication of the BLS results includes the detailed results (that is, the percentage of respondents selecting each possible answer), as well as a variety of summary statistics, such as the net percentage, the diffusion index, the mean and the standard deviation. The main statistical tool used by the ECB for analysing the euro area aggregated results is the net percentage.

In particular, the net percentage methodology focuses on the difference between the share of banks reporting tightening of credit standards and the share of banks reporting easing. A positive net percentage indicates that the majority of banks has tightened credit standards (“net tightening”), whereas a negative net percentage indicates that the majority has eased credit standards (“net easing”). Similarly, the term “net demand” refers to the difference between the share of banks reporting an increase in the demand for loans and the share of banks reporting a decline. Net demand will, therefore, be positive if a larger proportion of banks has reported an increase in the demand for loans and vice versa.

An alternative measure for the statistical analysis of the survey results is the diffusion index, which is very similar to the net percentage, but differs as to the method of estimation. Analytically, the diffusion index is defined as the “net percentage” weighted according to the frequency observed for any possible answer. More specifically, a larger weight is assigned to answers with a response “to a large extent” (score of 1) compared with answers with a response “to some extent” (score 0,5).

The interpretation of the diffusion index follows the same logic as the interpretation of net percentage. Consequently, for questions concerning supply, values of less than zero correspond to an easing of the criteria or the impact of factors in the sense of lower restrictiveness. On the other hand, values greater than zero correspond to a tightening of the criteria or credit lines. Similarly, for questions concerning demand, negative figures imply a decrease in demand while positive figures point to an increase. The following table gives an example of the aforementioned methods and their estimation.

Table: Example of estimating the summary statistics from the responses of the participating banks

1. Over the past three months, how have your bank's credit standards as applied to the approval of loans or credit lines to enterprises changed?

	Overall		Loans to small and medium-sized enterprises		Loans to large enterprises		Short-term loans		Long-term loans	
	Q2	Q3	Q2	Q3	Q2	Q3	Q2	Q3	Q2	Q3
Tightened considerably	3%	9%	0%	5%	4%	12%	1%	5%	5%	17%
Tightened somewhat	41%	56%	34%	52%	41%	56%	30%	44%	48%	50%
Remained basically unchanged	56%	36%	64%	42%	56%	32%	69%	51%	46%	32%
Eases somewhat	1%	0%	1%	1%	0%	0%	0%	0%	1%	1%
Eased considerably	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<i>Total</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>
<i>Net Percentage</i>	<i>43%</i>	<i>65%</i>	<i>34%</i>	<i>56%</i>	<i>44%</i>	<i>68%</i>	<i>31%</i>	<i>49%</i>	<i>52%</i>	<i>66%</i>
<i>Diffusion Index</i>	<i>23%</i>	<i>37%</i>	<i>17%</i>	<i>30%</i>	<i>24%</i>	<i>40%</i>	<i>16%</i>	<i>27%</i>	<i>28%</i>	<i>42%</i>
<i>Standard Deviation</i>	<i>0,59</i>	<i>0,64</i>	<i>0,53</i>	<i>0,62</i>	<i>0,6</i>	<i>0,67</i>	<i>0,52</i>	<i>0,63</i>	<i>0,63</i>	<i>0,75</i>
<i>Number of banks responding</i>	<i>106</i>	<i>105</i>	<i>106</i>	<i>104</i>	<i>102</i>	<i>100</i>	<i>106</i>	<i>105</i>	<i>104</i>	<i>103</i>

Usufel notes:

(1) Net percentage is defined as the difference between the sum of the percentages for "tightened considerably" and "tightened somewhat" and the sum of the percentages for "eased somewhat" and "eased considerably". For example, the net percentage for the overall loans in July is calculated as follows: $((3\%+41\%)-(1\%+0\%)) = 43\%$

(2) Diffusion index is defined as the difference between the weighted sum of the percentages for "tightened considerably" (score of 1) and "tightened somewhat" (score of 0.5) and the sum of the percentages for "eased somewhat" (score of 0.5) and "eased considerably" (score of 1). For example, the diffusion index for the overall loans in July is calculated as follows: $((3\%*1)+(41\%*0,5))-((1\%*0,5)+(0\%*1)) = 23\%$

Source: ECB

The euro area survey results are available on the ECB website <http://www.ecb.europa.eu/stats/money/surveys/lend/html/index.en.html>.

Cyprus has been participating in the Bank Lending Survey since April 2008, with a sample size covering around 90% of the total outstanding loans to euro area enterprises and households. The aggregated national results are published on the Central Bank of Cyprus website <https://www.centralbank.cy/en/publications/surveys/bank-lending-survey> soon after the ECB publication of the euro area results without, however, disclosing the identities of the participating banks for confidentiality purposes. The analysis of the national results is based on the diffusion index methodology. It should be noted that the aggregated national results are not weighted according to the market share of each participating bank, consequently the answers of all participants carry equal weight.