Methodology

For every question, the participating credit institutions (CIs) may choose among five possible answers. Regarding the questions on credit standards and the terms and conditions of loans, the possible answers are:

"tightened considerably",
"tightened somewhat",
"remained basically unchanged",
"eased somewhat" and
"eased considerably".

Regarding 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".

There are three different methods for deriving the aggregate results of the BLS for the sample as a whole: the **"Net Percentage"**, the **"Diffusion Index"** and the **"Average"**.

• Net Percentage (*NP*)

The net percentage methodology focuses on the difference between the percentage of Cis that report tightening of credit standards (or of the terms and conditions of loans) and the percentage of Cis that report easing. With respect to the questions on the demand for loans the NP records the difference between the percentage of CIs that report an increase and the percentage of CIs that report a decrease. In practice if the sample has four institutions, the NP methodology implies that to every question we assign a percentage (25%, 0%, or -25%) as follows:

"tightened considerably"   25%
"tightened somewhat"   25%
"remained basically unchanged"   0%
"eased somewhat"   -25%
"eased considerably"   -25%

The NP for the sample as a whole equals the algebraic sum of the percentages that correspond to the answers given by all four CIs and can take a value in the range of 100% (all CIs have answered that credit standards were tightened either considerably or somewhat) to -100% (all CIs have answered that credit standards were eased either considerably or somewhat). It should be noted that in deriving the results for the Greek sample, the answers of each institution are not weighted with its market share: all institutions have the same weight.

• Diffusion Index (*DI*)

As noted above the NP method does not differentiate between answers that record a considerable change and those that a record small change. The DI I a measure that attempts to capture this differentiation by assigning weights in accordance with the intensity of the change. Thus 'considerably' gets a weight of 1 while 'somewhat' a weight of 0.5. If the sample has four institutions, the DI methodology assigns the percentages as follows:

"tightened considerably"   25%
"tightened somewhat"   12.5%
"remained basically unchanged"   0%
"eased somewhat"   -12.5%
"eased considerably"   -25%

The DI for the sample as a whole equals the algebraic sum of the percentages that correspond to the answers given by all four CIs and can take a value in the range of 100% (all CIs have answered that credit standards were tightened considerably) to -100% (all CIs have answered that credit standards

were eased considerably). It should be noted that in deriving the results for the Greek sample, the answers of each institution are not weighted with its market share: all institutions have the same weight.

For the questions on credit standards (or the terms and conditions of loans), a positive value of the NP or the DI indicates that, for the sample as a whole, credit standards were tightened ("net tightening"), whereas a negative NP or DI indicates that they have eased ("net easing").
For the questions on credit demand, a positive value for the NP or the DI is referred to as an increase in the demand for loans whereas a negative value signifies a reduction in credit demand for the sample as a whole.

• **Average**

To each answer we assign a value in the scale 1 to 5, with 1 corresponding to "*tightened considerably*" or decreased considerably" and 5 corresponding to "*eased considerably*" or "*increased considerably*".

For each question, the average is calculated as the simple average of the values reported by the four institutions in the sample. If the average takes a value lower than 3, this indicates that credit standards (or terms and conditions) for the sample as a whole were tightened, whilst a value above 3 indicates an easing of credit standards. In the case of credit demand a value lower than 3 indicates a decrease in demand, whereas a value over 3 an increase in the demand for loans. It should be noted that in deriving the results for the Greek sample, the answers of each institution are not weighted with its market share: all institutions have the same weight.

The following table gives an **example** of the calculation of the three indices:

Suppose that there are four CIs participating in the survey. In *Table 1* we record their answers to the evolution of changes in credit standards and in *Table 2* their answers to changes in demand.

Table 1				
Cis	**Answer**	**Net Percentage**	**Diffusion Index**	
A	*tightened considerably*	25%	25%	
B	*eased considerably*	-25%	-25%	
C	*tightened somewhat*	25%	13%	
D	*remained basically unchanged*	0%	0%	
Function		=sum(25%;-25%;25%;0%	=sum(25%;-25%;13%;0%	=avera
BLS result		25%	13%	

Table 2				
Cis	**Answer**	**Net Percentage**	**Diffusion Index**	
A	*decreased considerably*	-25%	-25%	
B	*increased considerably*	25%	25%	
C	*decreased somewhat*	-25%	-13%	
D	*remained basically unchanged*	0%	0%	
Function		=sum(-25%;25%-;25%;0!	=sum(-25%;25%;-13%;0!	=avera
BLS result		-25%	-13%	

The ECB publishes the results of the survey for the euro area. The overall euro area results are derived from the weighted average of national results. The weights are updated every quarter and are equal to the national shares in the total euro area outstanding amount of loans to non-financial corporations and households.
The ECB publication of the BLS results relies mainly on the **NP methodology**.

The Bank of Greece publishes the BLS results according to both the **NP** and the **average methodologies**.