

Methodological annex n°5: The revision of FISIM

Financial institutions explicitly charge their clients for services (such as credit cards, portfolio management, etc.). The estimation of this production is in the general case of measurement of output from sales.

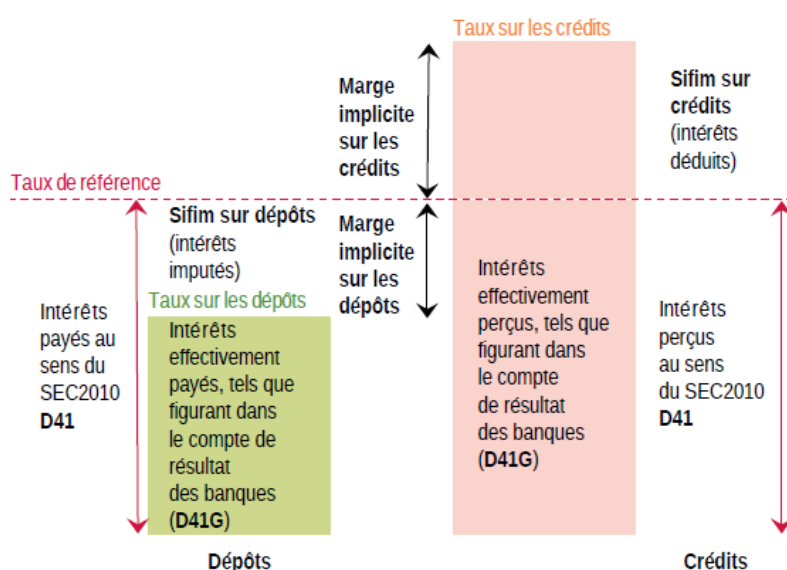
However, financial institutions also offer services that they do not explicitly bill to their clients. When a bank grants a loan to a client, the interest rate it applies is higher than the rate at which the bank can refinance itself (reference rate), it charges (implicitly) a credit access service. The value of this service covers its production costs and includes a profit margin. Similarly, when a client deposits money into their bank account, they are effectively lending to the bank by accepting a return lower than the reference rate. The bank implicitly charges for an account management service beyond the billed services. In both cases, the bank acts as a financial intermediary that transforms short-term resources (deposits) into long-term commitments (loans).

This financial intermediation service produced by the bank is not explicitly invoiced, it must be measured via interest margins, it is the «financial intermediation service indirectly measured» (FISIM). In the 2020 benchmark, the output of FISIM is estimated at €38.6 billion, compared to €44.6 billion in the 2014 benchmark, representing a revision of €-6.0 billion.

1. The FISIM in national accounting

The financial intermediation service indirectly measured (FISIM) is estimated based on the margins financial institutions make on their deposits and loans. For example, a bank might refinance itself at an average rate of 1% and offer a loan at 3%, thus achieving a 2% margin [► [Figure 1-1](#)]. The resulting interest flow margin measures the financial intermediation service produced by the bank and consumed by the client.

Figure 1-1 : Sifim sur les dépôts et les crédits



FISIM are calculated as the difference between the effective interest rates to be paid and received and a "reference" interest rate; this reference rate theoretically represents the "pure" cost of borrowing, i.e., a rate from which the risk premium has been eliminated as much as possible, and which includes no intermediation service. In practice, two reference rates are calculated:

- **The internal reference rate:** for the distribution of national FISIM; it is determined by the ratio between the interest to be received on loans and the total outstanding loans among financial institutions.
- **The external reference rate:** for calculating the imports and exports of FISIM; this is the average interbank rate weighted by the ratios of loans and deposits between resident financial institutions and non-resident financial institutions.

For resident sectors, the FISIM on deposits (S_d) and the FISIM on loans (S_c) are calculated as follows :

$$S_d = (\tau_{ref} - \tau_d) \cdot E_d$$

$$S_c = (\tau_c - \tau_{ref}) \cdot E_c$$

With $\tau_{ref}, \tau_d, \tau_c$ representing the reference interest rates for deposits and loans, respectively, and E_d, E_c , representing the outstanding deposits and loans, respectively.

The output of FISIM within the territory is defined as the sum of FISIM on deposits and loans: $S = S_d + S_c$.

If the outstanding loans and deposits are similar $E_d \approx E_c \approx E$, which is the case in France, then the output of FISIM equals the gross interest margin of financial institutions:

$$S = (\tau_c - \tau_d) \cdot E$$

The imputation of FISIM (produced and consumed by clients) involves symmetrical corrections to transactions on goods and services (output, intermediate consumption, final consumption) and transactions of distribution, interest on loans and deposits, so that the net lending / net borrowing of institutional sectors are not affected by the allocation of FISIM. The interest received and paid from the primary income account are "pure" interest, excluding payment for financial intermediation services; the interest rates on deposits and loans are equal to the reference rate. In other words, compared to the actual interest flows, the interest paid by financial intermediaries is increased by the FISIM on deposits, and the interest received by banks is decreased by the FISIM on loans.

2. A new estimation method in 2020 benchmark

In 2020 benchmark, the new method improves the calculation on three points:

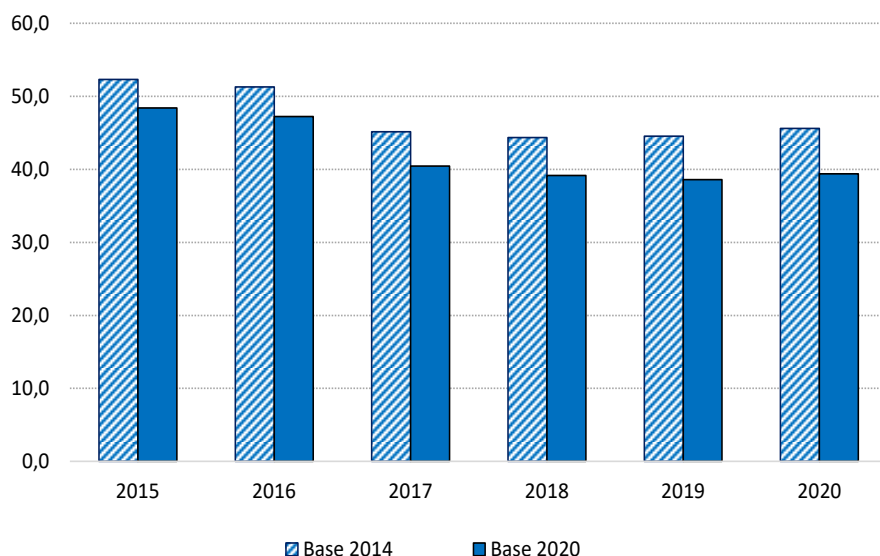
- In the 2014 benchmark, the method for calculating FISIM relied on interest received and paid on loans and deposits as recorded in the financial statements of financial institutions, without information on the "client" institutional sectors. The breakdown of interest by institutional sector was performed using a breakdown of outstanding of financial accounts, requiring the strong assumption that interest rates are similar across different institutional sectors. In the 2020 benchmark, the estimates mobilize data from financial institutions reported to the Prudential Control Authority (ACPR) regarding the interest received and paid, which correlates the types of deposits and loans with the "client" institutional sectors. Consequently, the Banque de France now has access to detailed data that significantly improve the estimation of FISIM.
- The scope of operations covered by FISIM has been expanded to include leasing and doubtful debts. This change slightly alters the credit rates of non-financial corporations with banks (by about 6 percentage points) that are included in the calculation of FISIM.
- Secured financing operations (known as repurchase agreements in banking terminology) have been added to interbank operations for calculating internal and external reference rates, whereas this was not the case in the 2014 benchmark. Their inclusion in the scope of interbank transactions automatically leads to a fall in the reference rate, because these transactions generate small amounts of interest but have significant amounts outstanding.

3. A decrease in level that does not affect the evolutions

All the changes made to the calculation of reference rates and the apparent rates of loans and deposits in the transition to the 2020 benchmark result in a decrease in the level of FISIM produced by resident financial institutions, by approximately €-6 billion in 2019 and 2020, without affecting their rate of

change, which remains unchanged in the new benchmark compared to the previous one [[► Figure 3-1](#)].

Figure 3-1 : FISIM produced by resident financial institutions in € (billion)

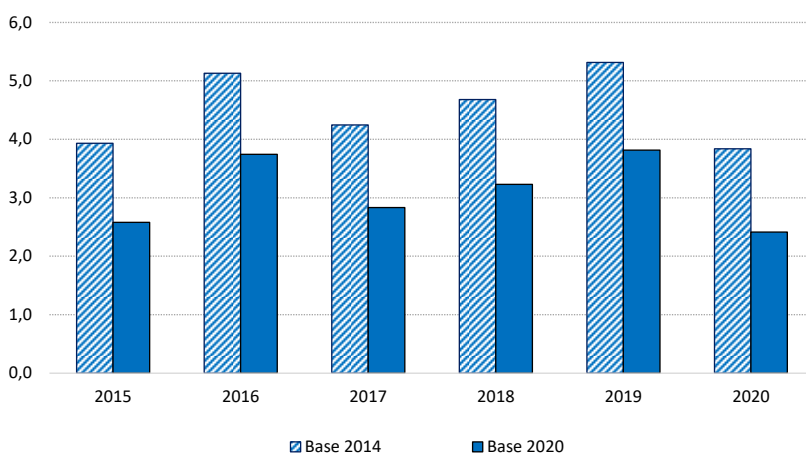


Source : Insee, national accounts

The revision of output affects uses, particularly those of non-residents. The exports of FISIM are revised by €-1.5 billion between 2015 and 2020 [[►](#)

[Figure 3-2](#)].

Figure 3-2 : Exports of FISIM in € (billion)



Source : Insee, national accounts

Overall, these revisions have a downward effect on the GDP level (€-1.7 billion). In addition to the revision of the exports mentioned above (€-1.5 billion), the downward revision of household final consumption (€-0.4 billion) negatively impacts the GDP level. Conversely, the downward revision of imports (€-0.2 billion) slightly compensates for the decrease linked to the other revisions.