



# Memorandum on FISIM

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# FISIM( Financial Intermediation Services Indirectly Measured)

**FISIM (imputed bank service charge)**

**= Property Income Receivable**

(Excluding Income on Own Funds)

Includes: interests receivable, dividends,  
net rent of land

**Minus**

**Interest Payable**

Includes: interests payable to depositors

# FISIM (imputed bank services) in 68SNA

- In 68SNA, FISIM (imputed bank services) was treated as **intermediate consumption** of the **nominal industry**, which has no output itself. Therefore, the size of the activities of financial intermediaries does not directly affect the size of GDP of the country .

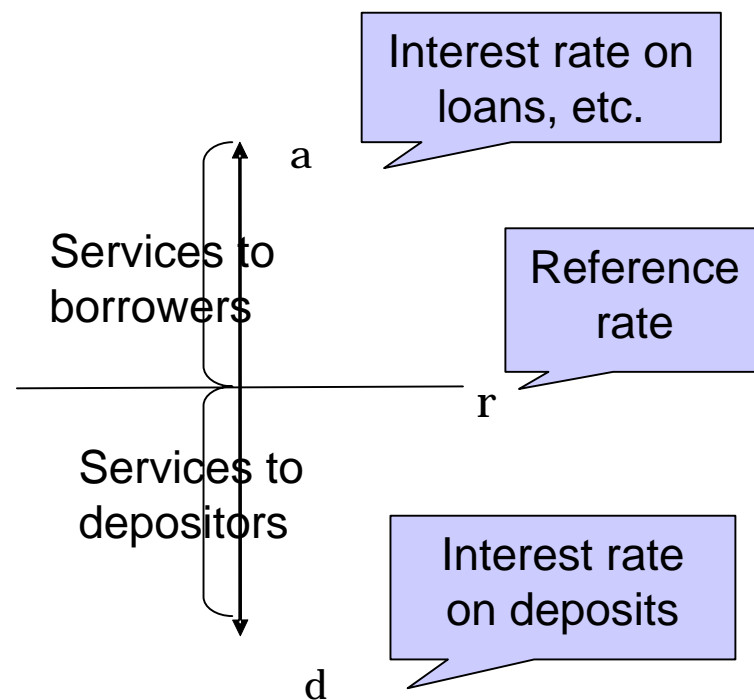
# FISIM in 93SNA



- The **allocation** of FISIM to **final items** (final consumption expenditure and export) as well as intermediate consumption was recommended preferably using the reference rate of interest.
- However, due to conceptual as well as practical problems, this recommendation was rarely implemented.

# The referent rate of interest and the idea of the allocation of FISIM

- The referent rate of interest “represents the pure cost of borrowing funds - that is, a rate from which the risk premium has been eliminated to the greatest extent possible and which does not include any intermediation services.” (93SNA, para.6.128)
- The reference rate may be the inter-bank rate or the central bank lending rate.



# Allocation using reference rate in 93SNA and its problem

- Global FISIM (imputed service charge in 68SNA)

$$\text{FISIM} = aA - dD \quad (1)$$

Notation: loans A; deposits D; interest rate on deposits d; interest rate on investments a; For simplicity, let us assume D is the only funding vehicle and A is the only type of invested asset.

- It was claimed that allocating FISIM by using reference rate r was possible. Thus, according to the assertion,

$$aA - dD = (a - r) \times A + (r - d) \times D.$$

- But, in order for it to be in the case, the following equation must be true;

$$A = D.$$

# New EU regulation about the allocation of FISIM (Eurostat proposal for the minor revision of 93SNA by 2008)

- 1) Not aA – dD,  
but (a – r) x A + (r – d) x D  
should be deemed as FISIM.
- 2) Only loans on the lending side and deposits on the funding side should be taken into account.
- 3) Central banks should be treated as government-like units whose output is estimated by adding up costs.

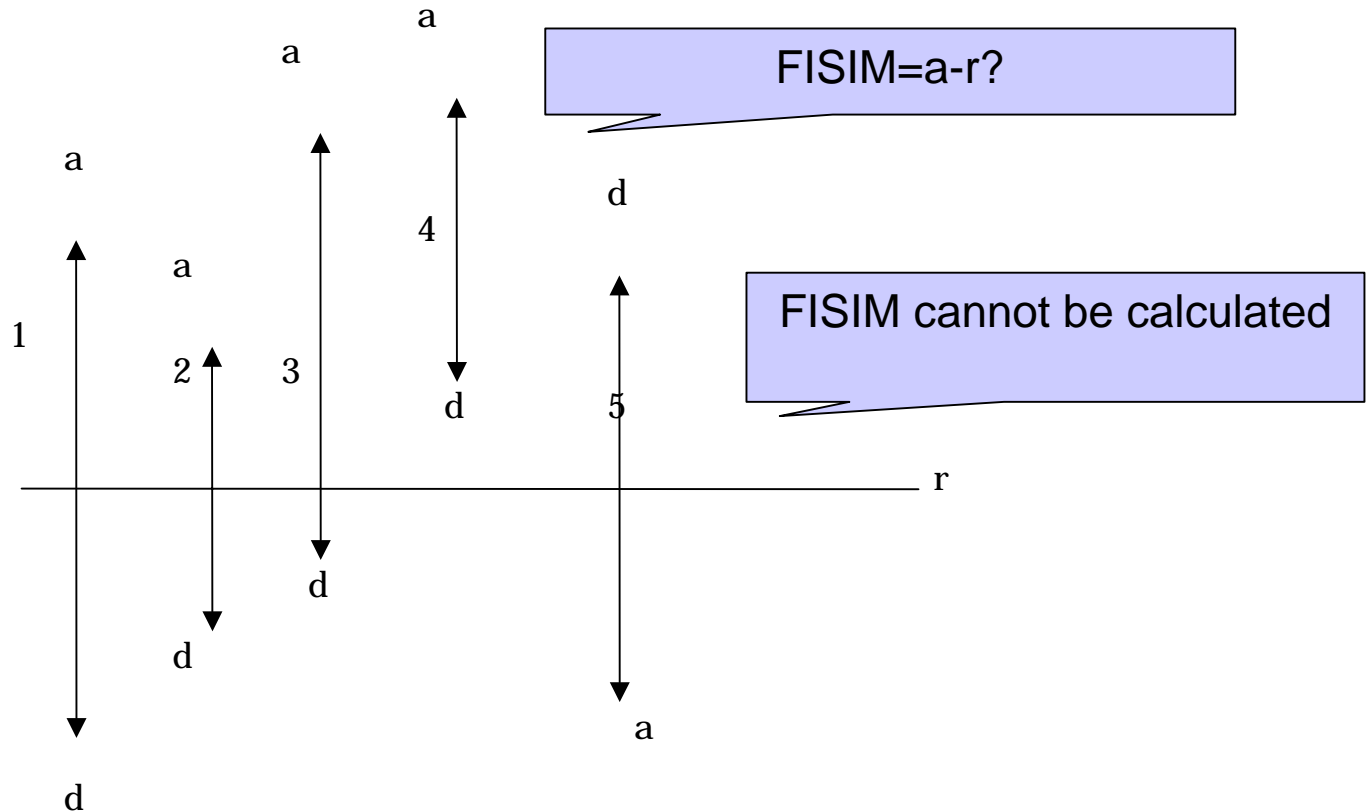
# Three problems to be overcome

- (1) Financial intermediaries have to be deemed to engage in production.
- (2) The production has to be somehow reflected in GDP. That is, FISIM should not be treated as intermediate consumption of the nominal industry as in 68SNA.
- (3) GDP of small countries having international financial centers should not be underreported.
- It appeared that they could be solved by allocating FISIM to final uses including export.

# Are the problems solved by allocating FISIM?

- It should be questioned whether the proposition that 0.3 unit of FISIM is necessary to produce one unit of steel has any meaning.
- As far as services to depositors are concerned, this proposition may have some meaning, perhaps.
- But when it comes to the lending side( services to borrowers), its meaning is very obscure, if any.
- The distinct border line between what banks do and what government units do can not be delineated.

# Problems about the unique reference rate

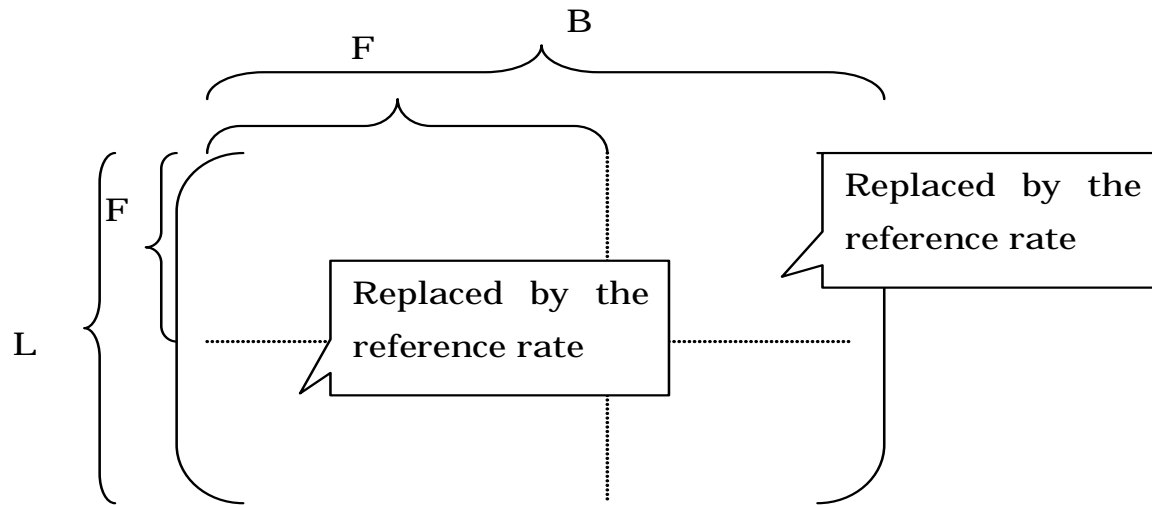


Reference rate: interest rate on deposits: interest rate on investment

# Pervasive impacts on economic statistics in general

- It raises serious questions to assume the unique interest rate, not in a theoretical model, but in a step to process statistics. There is a danger that it is not fully understood by the producers and users of statistics that **such an imaginary rate could affect balance of payments statistics and other economic and financial statistics** beyond the scope of national accounts statistics.

# An interest rate matrix



$L \times B$  Matrix of interest rates, a typical element  $r_{ij}$   $i \in L, j \in B$  of

which means the interest rate of the  $i$ th lender lending a certain sum of money to the  $j$ th borrower.

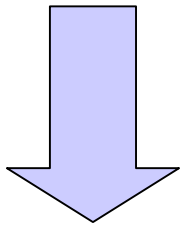
$L$ ; a set of lenders or the number of lenders

$B$ ; a set of borrowers or the number of borrowers

$F$ ; a set of financial intermediaries or the number of financial intermediaries

# Are risk premium elements successfully accounted for?

$$r_{ij} = r + s_{ij}$$



$$r_{ij} = r + s_{ij} + rp_{ij}$$

Since the risk premium should be considered as an (non-life) insurance-premium-type payment, it seems more reasonable to think that most of the risk premium is a contractual transfer, although the existence of the factor of service charges in the premium cannot be denied.



# A proposal 1)

- 1) Services to depositors (lenders) should be measured in a similar method as the allocation method for FISIM which is based on the reference rate of interest as proposed by Eurostat, while taking opportunity costs into account. In the case of producers being depositors, there is not choice but to use an ad-hoc method, such as allocation in accordance with deposit balances by industry. Imputation on the income side is also necessary.

## A proposal 2)-1

- 2) As to private financial intermediaries' residual services, they should be measured by deducting the above services to depositors from the measures of the global FISIM of the 68SNA system or some extended measure which more fully takes into account profit and loss items, inclusive of items for bad debts, for example.

# A proposal 2) -2

- The complicated nature of services to borrowers should be taken into account. The FISIM in question should be treated as purchase by the nominal industry unit as in the 68SNA (as intermediate consumption of the industry).
- Or the output of the nominal industry, the value of which is the same as that of the input to the nominal industry, might be considered to be among final items as in 3) below.



## A proposal 3)

- 3) As to central banks and other publicly controlled banks, their output should be measured by their costs, as they are the tools to implement public policies. The output should be assumed to be consumed by special units as final items.

## A proposal 4) FISIM at constant prices

- 4) FISIM at constant prices should be measured by building up costs, while taking into account a change in productivity (in the same method as proposed for government services at constant prices in 93SNA). As to the services discussed in 1), the method explained in the text should also be considered.