

## SNA Bank (Depository Corporation) Output Measurement Method and Copernican Change –Fallacy of Composition and Marketable Lending Service

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## (I) Introduction

SNA bank output measurement method has not become definitive yet. Although bank companies are market producers, SNA bank output data have been provided by imputation, i.e., hypothetical estimation method. Since SNA bank output measurement method has been hypothetical, every SNA(1953, 1968, 1993, 2008) could not help altering the bank output measurement method. This phenomenon is a serious matter not only for economic data per se but also for the research tool of economic problem. In this paper, first, I develop logically the cause of fault in SNA bank output measurement method, and then I propose the objective bank output measurement method to substitute for SNA bank output measurement method.

(I think that the output measurement of financial institutions other than bank (depository corporation) is easier than that of bank (depository corporation), since the output of their institutions is evaluated by the fee of asset management service, liability management service, or intermediation service that reflects the market transaction. Therefore, at present, preferentially, I will deal with only bank (depository corporation) output measurement method.)

(II) The cause of fault in SNA bank output measurement method

SNA has not succeeded in bank output measurement. I think firmly that its cause consists in the fallacy of composition about banking behavior. Banking behavior is different between micro i.e. in individual bank and macro i.e. in all banks in national economy. SNA's mistake or fallacy is the result that SNA understands the banking function from banking behavior of individual bank. That is, financial intermediary or the bank collects deposit and lends. Therefore, first of all, SNA, as macro economic statistics, has to consider the banking behavior from the point of the view of macro i.e. in all banks in national economy, and also has to remind that bank can lend by its own issuing deposit money without cash money from depositor.

In the following, I explain how the banking behavior from the point of the view of macro i.e. in all banks in national economy is. But, for the further understanding of banking behavior from the point of the view of macro i.e. in all banks in national economy, let us start with banking behavior from the point of the view of micro i.e. in individual bank that SNA relies on. The essence of the bank behavior consideration is that the difference of both micro point and macro point emerges in the difference of bank deposit. One is the primary deposit that does not derive from bank lending, the other is the derivative deposit that derives from bank lending.

## (1) The banking behavior from the point of the view of micro or individual bank

Individual bank collects deposit and lends, and the deposit is primary deposit that does not matter the source of deposit or does not derive from bank lending. According to the theory of credit multiplier, individual bank can create the lending by multiplier times of the primary deposit. Thus, individual bank plays the role of financial intermediation. On the other hand, SNA has recognized that the bank function is the financial intermediation (e.g., FISIM), hence, we can understand that SNA has followed bank behavior from the point of the view of micro or individual bank. But, so far, SNA has not succeeded in bank output measurement. Therefore, as macro economic statistics, SNA has to take off from this micro point of the view, and has to base on the bank behavior from the macro point of the view.

(2) The bank behavior from the point of the view of macro or all banks in national economy

A number of banks exist in national economy, e.g. bankA, bankB, bankC, ...... Now, let us take a following example: X is the employee of companyY, and has the deposit of bankA. CompanyY has the deposit of bankB, pays the wage of X from its deposit of bankB, and transfers it to the deposit of X in bankA. So, in macro case, we can recognize that the deposit of X in bankA based on the transfer from companyY derives from the deposit of Y in bankB, the deposit of Y in bankB may have been made either by the borrowing from bankB or by sales receipt to companyZ that has the deposit of bankC, and further, the sales receipt to companyZ may have been paid by the deposit of Z in bank C issued for the borrowing of companyZ. In this way, when we are tracing the links of economic transaction, we find that in macro economy, every deposit connects

each other and the source of the deposit is bank lending. In practice, as money supply statistics shows, money is supplied by deposit money i.e., demand deposit through bank lending. Incidentally, the supply of base money by central bank just indirectly influences the supply of deposit money by private bank lending through the formation of policy interest rate. Thus, we can understand that every bank deposit inclusive the deposit of X in bankA from the point of the view of macro or all banks in national economy is the derivative deposit based on the private bank lending<sup>1</sup>. Therefore, we can find that from the point of the view of macro or all banks in national economy, first of all, private bank lends, then provides its lending not by cash money but by deposit(i.e., derivative deposit) because the bank deals with deposit(e.g. demand deposit) and the bank can issue the deposit(bank's credit creation function), and further the deposit issued by the bank lending is transferred from the bank deposit of borrower or debtor to that of creditor, and everlastingly, the emergence of the derivative deposit and the transfer by the bank deposit are going on through economic transaction in national economy. In the end, through the bank behavior from the point of the view of all banks in national economy or macro economy, we can find that bank function is not to provide financial intermediation service based on the primary deposit in individual bank but to provide the lending service that induces bank deposit i.e., derivative deposit, and SNA bank output measurement method has to be based not on the financial intermediation function but on the bank lending function.

(III) The bank output measurement method to substitute for SNA bank output measurement method

From the above examination, SNA has to change bank output measurement method. SNA's bank function is not financial intermediation in SNA 2008 but lending. SNA bank output is not financial intermediation service that consists of deposit service and lending service in SNA 2008 but marketable lending service. SNA bank output is not measured by the hypothetical estimation in SNA 2008, that is, the deposit service is estimated by the difference between deposit interest and reference interest rate, and the lending service is estimated by the difference between lending interest and reference interest rate, but is measured by only marketable lending interest in market transaction between bank and borrower. For the clarification of our bank output measurement method, let us explain it with SNA account form, i.e., in production account and income distribution account. Bank output, i.e., lending service is shown as service sales receipt in bank production account not by margin between lending interest and deposit interest but by lending interest only. And deposit interest is shown as payable interest on financial transaction in bank income distribution account. In this way, SNA can get straightforward, stable bank output measurement method<sup>2</sup>, and we can confirm the performance of bank(depository corporation) role i.e., mainly the provision of settlement service through bank lending that contributes the normal proceeding of current or routine economic activity and the provision of physical investment or innovation investment support service through bank lending that contributes the activity that contributes the expansion of economic society.

SNA bank output measurement method must be released from the hypothetical-oriented or nonmarket-oriented measurement method by change of the point of view of the bank behavior from individual bank or micro economy into all banks or macro economy, that is, by avoiding fallacy of composition.

## Notes

- 1. Thought or idea in this section, i.e., (2) The bank behavior from the point of view of macro or all banks in national economy depends on the books of Yokoyama[3] and Yoshikawa[4].
- 2. The necessity of straightforward or simple method in the bank output measurement substituted for SNA's FISIM is pointed out in the book of Coyle[2] chapter 6.

References

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