



CLASSIFICATION AND DEFINITION OF FINANCIAL PRODUCTS

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1 Introduction¹⁾

Last year the Statistical Office of the United Nations has published a report on the Central Product Classification (CPC)²⁾. As part of this classification also regarding the financial intermediation services and the financial auxiliary services a break-down by type of service is proposed in this report.

The proposed specification of financial intermediary and auxiliary services gives rise to a number of questions.

These questions relate to the nature of the financial services, whether differences between services exist because of different producing institutions, the possibility of using the definition of the production value of the financial intermediary services as proposed in the draft of the new SNA, the valuation of financial auxiliary and financial intermediary services and the possibilities of a break-down of the financial intermediary services by type.

2 The plural classification of financial services

In the draft CPC one can see that some types of financial (intermediary and auxiliary) services, which to a large extent seem to be comparable, are classified under different headings.

At first, this applies to the services related to the issue of currency,

1). This paper is an condensed version of "Classification and definition of financial products", CBS, Voorburg, September 1991. The original document is available on request.

2). Statistical Office of the United Nations, Provisional central product classification, Statistical papers, Series M, No. 77, New York, 1991.

which are classified as a service of the central bank (CPC 81114) and as a service of other banks (CPC 81117). Secondly, plural classification of financial services exists concerning the supervisory and the regulatory services. These services are explicitly mentioned as central bank services (CPC 81112) and auxiliary services (CPC 81312).

Several institutions can produce (one or both) of the above mentioned types of services. Especially the central bank, central government, specialized government or non-government agencies, the stock-exchange, specialized private institutions etc. rather often are involved in producing these financial services. Whether any institution produces a specific type of financial services depends upon the institutional structure of the country involved. Sometimes two or even more institutions might produce these types of services.

For example in the Netherlands currency issue services are produced by the central bank and the Dutch central government (issue of coins) while commercial banks do not play any role in this respect. Also several institutions play a role in producing regulation services in the Netherlands. Especially central government and the stock exchange produce these types of services but also some specialized private and public institutions.

So, apart from the institutions explicitly mentioned in the CPC also other institutions could produce these types of services. In these cases the CPC probably intends to include these services in a more general heading. Especially this could be the case concerning services produced by central government.

It is also pointed at the problem which arises concerning the currency issue service of general government. This service can not be classified under one of the above mentioned headings for these headings relate explicitly to the currency issue services produced by either the central bank or by other banks. The description thereof does not leave any room for including currency issue services produced by central government.

The first answer to be given is of course whether each of the above mentioned headings in the draft-CPC relates to comparable types of financial services. If they relate to distinct types of services one should investigate and depict the principal features of each type. If no real distinction exists the reasons for the plural classification of comparable services should be clearly set out in the CPC.

Concerning the currency issue services one can see that the central bank frequently issues just banknotes as do the other banks while central government issues coins. In our view these elements do not imply any real distinction which is sufficiently important to classify these services separately. This implies that all currency issue services are fully

comparable and therefore should be classified under the same heading. Because of the vital and frequent role of the central bank in this respect the most appropriate heading in our view is a subclass belonging to the main heading of central bank services.

Relating to supervisory and regulatory services things certainly are more complicated. Here quite easily a distinction can be seen between the type of institutions which are supervised, the market which is regulated, the institution producing the supervisory and regulatory services etc. However, it is questioned whether these aspects are a sufficient base for separating the services and spreading them over several headings of the CPC.

In our view only the difference between regulation and supervision of financial markets and institutions on the one hand and of non-financial markets and institutions on the other is of sufficient importance to conclude on separate headings in the CPC. The reasoning behind this is the much more intensive regulation and supervision of the financial markets and institutions.

This implies that a separate heading "supervisory and regulatory services of financial markets and institutions" should be included in the CPC, probably belonging to the class of financial auxiliary services. In this separate group all supervision and regulation of financial markets and institutions should be classified independent of the institution producing these services. Elsewhere in the CPC one or maybe more separate headings concerning supervisory and regulatory services of non-financial markets and institutions could be included.

3 The valuation of regulatory services

Concerning supervisory and regulatory services quite often either no payment is received by the institution producing this type of service or the payment is on a lump sum basis. For example in our country no payment is involved in the supervision of banks. In both above meant cases the receipts of the institution involved do not indicate anything about the amount of services it has produced.

Whether supervisory and regulatory services are paid for differs largely between countries depending on the laws and institutional arrangements of each country. This implies large risks of incomparability between countries.

Secondly, it can be observed that concerning this type of services not only the institutions, which are supervised, are the ones receiving a service but also the households living in the country. Even more, the whole economy of the country (maybe even the whole world) might profit from the supervisory and/or the regulatory services. In fact, concerning several types of finan-

cial services the wish of protecting the consumers motivates the supervision and regulation of financial markets and institutions. Additionally, the need of macro-economic policy might lead to supervision and/or regulation.

For example, the supervision of insurance companies and of financing companies *primarily* stems from the above mentioned protection motives. Also, regulation of the financial markets by the central bank *primarily* stems from macro-economic motives instead of *primarily* aiming at giving support to the institutions involved.

Especially, if *primarily* the whole economy and/or the households profit from the supervisory and regulatory services it is to be questioned whether the institutions, which are supervised or regulated, are the prime users of these services. Nevertheless, these institutions might pay for these services. In our view central government, representing all inhabitants of the country, should preferably be seen as the user of the service.

This perception of the use and the users of financial supervisory and regulatory services has implications concerning the way in which the value of these services are calculated.

If central government or any government-agency is producing these types of services the value thereof should be determined in accordance with normal practices concerning the value of government services.

If on the other hand independent institutions produce these services three possibilities exist. In the first place, government might pay for these services implying that the value of these services equals the amount charged to the central government.

In the second place, it is quite well possible that the institutions which are supervised pay for the service. Nevertheless, they should not be seen as the users of this service.

In the third place, it is possible that the supervisor carries the costs of the supervision by its own. In our country this occurs concerning in the supervision of banks by the central bank. The costs of the supervision is in these cases compensated by income from a different source (for example, investment income).

It is clear that especially the second and the third case might lead to rather complicated situations if it is felt necessary to include explicitly a service delivered to central government, representing the whole economy or all consumers of the country. Secondly, the payment of the institutions involved has in these situations nothing to do with the supervisory or regulatory service. This leads to discussions concerning the treatment of the transaction between government and the supervisor on the one hand and between the supervisor and the institutions on the other.

Because of these complications it is - just for reasons of simplicity - proposed to include in the GPC only the services which are paid for

explicitly. Also, it is proposed to deal with these services independently whether the payment for these services is on a lump sum basis. This implies that the institutions which pays for the service also are regarded to receive the service.

When government pays for the service it is, therefore, a service to the whole public while in other situations it concerns a service to the financial institutions. It follows that the treatment of the supervisory and/or regulatory services depends on the institutional arrangements within the country. This proposal, therefore, leads to incomparability between countries.

4 The financial intermediation service of banks

The CPC deals - as its name indicates - with a classification of products. This implies that any element dealing with the production process and the products resulting from that process should be classified according to the CPC.

Therefore, one has to decide on the nature and the coverage of the production process of the financial institutions and the various aspects thereof which could be classified according to the CPC. In our view it is impossible to develop a classification scheme without explicitly referring to certain aspects (variables) to be classified.

It is clear that the production process of financial institutions (their day to day activities) differs from that of the non-financial institutions. Whereas banks grant loans, accept deposits, pay and receive interest, etc. every day the non-financial institutions only occasionally are involved in these types of transactions.

In other words concerning the financial institutions - contrarily to the non-financial institutions - the production process and the financial process largely coincide³⁾. This follows from the fact that the production process of the financial institutions consists of financial intermediation between entities with a financial surplus and entities with a lack of financial means⁴⁾.

From the preceding it follows that in our view the CPC might aim at classifying the financial intermediary service - the interest margin or

3). Not all financial transactions of financial institutions have to do with the process of financial intermediation. Some transactions, i.e. the issue of own shares, have nothing to do with the production process of the financial institution.

4). In the SNA a general approach of all transactions is needed implying that any transactions which has to do with a certain process concerning both actors involved belongs to that process. Therefore, the perceptions of national accountants may diverge from the view expressed here.

imputed banking service - and the financial or interest transactions involved.

The question arises whether it is possible to specify the imputed banking service by type of asset and liability involved. In answering this question four elements are important, viz.:

- 1- the theoretical justification of the specification;
- 2- the usefulness of the specification;
- 3- the practical possibilities of implementing the specification;
- 4- debt-relations between financial institution.

ad 1 the theoretical justification of the specification

Financial intermediation is a service produced by the financial institutions in intermediating between the entities with a surplus of financial means and the entities with a shortage. For performing this function the financial institutions:

- a collect money from the entities with a surplus;
- b transform funds with regard to maturity, scale, risk etc.;
- c invest funds with entities with a lack of financial means.

Sometimes the relation between individual assets and liabilities is rather direct; the financial institutions collect funds and invest - after transformation - just these funds in a specific direction. In other situations the link between individual assets and liabilities is more indirect in nature.

Nevertheless, the service to the debtor and the creditor of the financial institutions both include all three elements, i.e. transformation aspects, aspects dealing with the collection of funds and aspects dealing with the investment of funds. So all debtors of financial institutions receive a service which includes elements dealing with the collection of funds, the transformation thereof (i.e. making available the required funds) and the investment of funds with the debtor.

This view on the process of financial intermediation implies that the financial intermediary service includes aspects dealing with assets and liabilities and concerns several financial instruments.

It follows that - though it is possible to *distinguish* within the financial intermediary service aspects dealing with assets or liabilities - the *break-down* of financial intermediary services into a service dealing with the type asset and an other service dealing with the type of liability is not theoretically justified.

ad 2 the usefulness of the specification

Concerning the use of a break-down of the imputed service charge by type of asset or liability one can see that studies of banking service which use the interest margin as their prime measure are very rare. Studies using interest flows or financial transactions are on the other hand well-known. Given the (total) absence of studies in this area it seems doubtful whether use of a break-down of the interest margin as proposed by the CPC will be made.

In this respect is also worthwhile to point at all the elements of estimation necessary to make the proposed break-down. The large influence of estimations and, therefore, the possibilities of mistakes are a second reason for questioning the usefulness of the proposed break-down.

ad 3 the practical possibilities of implementing the specification

The new SNA includes a proposal to calculate the break-down the interest margin by sector. The same algorithm using reference-rates as a starting-point seems to be a possibility for calculating the specification of the margin in accordance with the CPC.

The quite different nature of the break-down of financial intermediary service by instrument, however, implies that a more detailed calculation is necessary. Therefore, information on the maturity of each instrument and specific reference-rates for each instrument and maturity are necessary. Given the large number of instruments and maturities it is doubted whether all reference-rates which are needed exist. If all these rates are available a break-down of financial intermediary services in line with the SNA-proposals is possible.

Nevertheless, quite some decisions have to be taken. At first, one should decide to take either rates on a daily base, monthly or yearly averages or end of the period figures. Secondly, one should take into account that some instruments have an interest specific maturity (which might differ from the full maturity) of more than one year. This implies that rates stemming from a previous year should be taken into account as well.

In our opinion it is doubtful whether a break-down is possible. At least the outcome is influenced rather heavily by the decisions taken during the calculation-process implying that no robust figures result from this algorithm.

ad 4 debt-relations between financial institution

Quite often it occurs that a financial institution grants a loan to an other financial institution. It is clear that the financial intermediary service going with this loan should go into one and the same direction over the full maturity of the loan. If for example an institutional investor grants a loan to a mortgage bank either the institutional investor delivers a service to

the mortgage bank or the other way round. When the interest-rate or the reference-rate change this direction could not change.

Secondly, the delivery of services into both directions at the same time (i.e. the institutional investor delivers a service to the mortgage bank and the mortgage bank delivers with the same loan a service to the institutional investor) contradicts the concept of financial intermediation.

A comparable problem arises when a credit is granted through the issue of bonds or another marketable instrument. Is the first subscriber providing a service to the issuer? If not is the second holder of the instrument doing so or is the issuer providing a service to the holders? Also here the choice of the right reference-rate which guarantees that the service over the full maturity goes into one and the same direction will be rather problematic.

From the preceding paragraphs we conclude that a break-down of the financial intermediary service of banks (the interest margin) into services delivered to debtors respectively to creditors and by type of financial instrument as proposed by the CPC seems inappropriate. Therefore, only interest flows, financial transactions and outstanding amounts might possibly be broken down according to these aspects.

This implies that the present break-down in CPC-group 811 should be skipped. Only the break-down of financial instruments according to CPC-group 891 might be useful. Concerning this CPC-group it is pointed at the importance of harmonizing the CPC-classification of financial instruments and the SNA-classification.

As already indicated the new SNA proposes a break-down of the financial intermediary service over sectors. In principle the foregoing arguments also apply. There are, however, some differences, viz.:

- the SNA proposes a break-down over sectors in their combined role as debtors and creditors of the financial intermediaries and does not separate services to debtors and creditors;
- the break-down is less detailed (no specification by type of asset and liability) implying that the calculation can be performed more globally.

On the other hand absence of a break-down by sector has within the SNA some disadvantages. The first disadvantage is that the national income will be miscalculated without this break-down because it implies that either the total amount of the imputed interest has to be considered as intermediary consumption or as final consumption. The truth lies in between.

Secondly, the classification of the total amount of imputed interest as intermediary consumption implies the necessity of a dummy-entity which is charged for the full amount. The theory behind this dummy-entity is rather difficult to users.

Nevertheless, even taking these counter-arguments into account, we would

prefer not to specify the imputed interest in the system of national accounts by sector.

5 The financial intermediation service of the central bank

The services of the central bank all are classified as financial intermediary services. Especially, the supervisory services of the central bank have, however, nothing to do with financial intermediation; these services are auxiliary in nature. This applies even more to the services of the central bank concerning the supervision of non-banks.

More general one could say that the financial transactions of the central bank have little to do with financial intermediation. The central bank does not intermediate between entities with a surplus and a lack of financial means. The bank mainly concludes these transactions because of monetary policy.

Therefore, one could doubt the classification of the services of the central bank within the class of financial intermediary services. Probably a separate class is more appropriate. On the other hand one should remember the origin of banknotes, viz. a certificate of deposit of gold: a proper example of financial intermediation.

The second problem concerning the central bank services concerns the valuation of these services. The income of the central bank largely consist of interest stemming from the investment of the bank. On the other hand the central bank pays only small amounts of interest. Therefore, the interest margin equals largely the gross interest receipts. Because these interest flows have little to do with financial intermediation, i.e. the services produced by the central bank, the interest margin is a bad indicator of the amount of services produced by the central bank.

For this reason a different indicator to measure the total value of the services of the central bank is proposed, viz. the costs which are made by the central bank in order to produce the services. It needs additional investigation and consultancy with the central banks whether it is possible to specify this indicator by type of service.

6 The financial intermediation service of investment funds

Concerning the valuation of the services of investment funds in line with the proposals of the new SNA quite some problems exist. The first problem stems from the fact that the new SNA takes into account the interest flows

only. Apart from interest the income (and outlay) of investment funds for an important part, however, consists of dividend. Also investments in real estate lead to rent instead of interest. When using the SNA-algorithm it, therefore, seems necessary to include both dividend and rent in the measure of the financial intermediary services of these institutions.

Secondly, the SNA excludes the income and outlay on own resources. With investment funds, however, nearly all interest, rent and dividend stem from own capital. Therefore, concerning investment funds this exclusion seems to be inappropriate.

Thirdly, the rent received on investments in real estate is the value of letting services, produced by the investment funds. According to the SNA-algorithm these rents should also be included in the calculation of the imputed service charge which implies double counting.

Fourthly, quite some investment funds do not pay dividend or only a limited amount of dividend. The shareholders (apart from dividend) receive their income through an increase of the value of their shares instead. This implies that according to the SNA-algorithm the imputed service charge equals the interest, rent and dividend income. So an overestimate of the real service charge is the consequence.

It follows that concerning the investment funds the SNA-algorithm leads to inappropriate results. Therefore, it is proposed to use the costs of the institutions as the measure of the service charge of these institutions instead⁵⁾. Also here it needs further investigation whether it is possible to specify the costs according to the type of service produced by the investment funds.

7 The financial intermediation service of insurance companies

The CPC considers the services of insurance companies as financial intermediary services. This implies that the services of these companies include aspects which deal with the collection of funds (contracting new policies, collecting premiums and technical reserves), the transformation and the investment of funds. So this service includes aspects of assets and of liabilities. It also implies that the service of the insurance companies goes towards their insured as well as toward their debtors.

The SNA on the other hand only takes account of the aspect of service to the insured. Also the SNA-algorithm to calculate the service charge is fully dedicated toward the insurance aspect of the service. In order to take the double sidedness of the service concept into account both the insurance-aspect (premiums, claims) and the investment-aspect (interest, dividend,

⁵⁾ The costs concerning letting of real estate should be excluded in the measure of the service charge.

rent) should be included in the calculation. Alternatively we propose to take the costs⁵⁾ as the measure of the service charge. This approach not only, implicitly, takes account of the double sidedness of the financial intermediary services of insurance companies it has - compared with the SNA-algorithm - also the advantage of a greater clarity.

Secondly, the nature of the variable to be specified according to the CPC should be investigated. As the CPC is directed towards products any variable which has to do with the production process of the insurance companies should be specified.

So, as with banks, the production process of the insurance companies should be investigated in order to get a clear picture of the nature and the coverage of the production process of these institutions. Comparable to the case of banks the production process of insurance companies includes the contracting of new policies, the receipt of premiums, the payment of claims, the granting of loans etc. So, with the insurance companies the production process and the financial process largely coincide. Therefore, apart from the service charge also the premiums, claims, interest etc. might be classified according to the CPC.

It follows that also concerning the service charge of insurance companies a decision on the possibility of a break-down by type of insurance (liability) and by type of asset should be taken. Here the same arguments as depicted concerning the service charge of banks apply. This means that - if the two sidedness of the service of insurance companies is taken into account - the break-down of the service charge by type of insurance and by type of asset is because of both theoretical and practical reasons impossible.

This implies that only premiums, claims, technical reserves etc. could be used as possible variables to be specified according to the CPC. The imputed service charge of the insurance companies should not be specified by type of insurance involved.

Additionally, we believe that it is of it great importance that the classification by type of insurance which is used in the CPC is in line with existing laws and (EC)regulations and existing international statistics.

⁵⁾ The costs concerning letting of real estate should be excluded in the measure of the service charge.