F.15 Debt Concessionality

F.15 Debt Concessionality[1]

Debt concessionality (also referred to as concessional lending) involves transactions where a loan is granted bearing an interest payable below normal market rates as a matter of policy, such that it contains a gift/transfer element from the creditor to the debtor. Concessional lending may occur both at time of provision of a new loan or when the terms of an existing loan change in the context of debt restructuring in the current statistical system (i.e., System of National Accounts, Government Finance Statistics Manual, Balance of Payments Manual, and European System of Accounts), these loan positions are valued at inception at their face/nominal value and the transfer element is only reported as supplementary information. This guidance note aims at addressing the valuation and recording of these loans in non-commercial contexts in the new editions of the Balance of Payments and International Investment Position Manual and the System of National Accounts, as well as all other macroeconomic statistics manuals.[2] It recommends to: (i) never record a transfer element for concessional lending in the "central framework" of national accounts and external sector statistics, except for concessional loans provided by employers to employees; (ii) remove the exception made for loans/deposits by central banks, as currently included in the System of National Accounts 2008 (2008 SNA) *and* Government Finance Statistics Manual 2014 (GFSM 2014)*; and (iii) classify the transfer element in the case of concessional loans provided by employers to employees as a continuous stream of current transfers in the "central framework" and in the case of concessional loans provided in a non-market context (i.e., those provided by governments, central banks and international organizations) as capital transfers at inception (for supplementary tables).*

SECTION I: THE ISSUES

BACKGROUND

1.   **The *Balance of Payments and International Investment Position Manual, sixth edition* (*BPM6*) and the *System of National Accounts 2008* (*2008 SNA*) identify debt concessionality as a topic for research work** (*BPM6,* paragraph 1.43 (h); and *2008 SNA,* paragraph A4.44).[3] Their current update is an opportunity to re-examine the concessional lending issue, in particular how the underlying financial instrument should be valued in the balance sheets of debtors and creditors,[4] and how and

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[1] Prepared by Philippe de Rougemont and Martim Assunção (Eurostat), Paula Menezes (Banco de Portugal), and Nabila Akhazzan and Rita Mesias (International Monetary Fund, Statistics Department (STA)).

[2] An earlier version of this GN was discussed at the March 2022 joint AEG and the Committee meeting. The majority view at that meeting was to continue to record concessional loans at their face/nominal value at inception with no further imputation and continuing to record the transfer element as a memorandum item/supplementary information (Option A/A1). The *Summary of Discussions* of this meeting are available here. However, there were concerns that this treatment would create an inconsistency with the recording of other concessional lending in the *2008 SNA* and *BPM6.* The BPM and SNA editors prepared an Issue Note, which was discussed at the October 2022 joint AEG and Committee meeting, and the recommendations of the Issue Note were approved (see paragraph 30). The *Summary of Discussions* of this meeting can be accessed here.

[3] Annex I summarizes the relevant references in macroeconomic statistics manuals.

[4] Valuation of loans (including NPLs) in general is discussed in the Guidance Note (GN) F.9 "Valuation of loans (Fair Value)". See also paragraph 21 below.

whether/when the transfer element should be recorded in the core accounts, so as to reflect the economic substance of the transaction more adequately.

2.   **Although there is no precise definition of debt concessionality, the *BPM6* and *2008 SNA* describe concessional loans as lending intentionally provided at a contractual interest rate below market interest rates, for similar grace and repayment periods, with the purpose to convey a benefit, occurring in a non-commercial context** (*BPM6,* paragraphs 3.79 and 12.51; *2008 SNA,* paragraphs 3.131, 3.134, 22.123, and 22.124; and *Government Finance Statistics Manual 2014 (GFSM 2014),* paragraphs 3.123 and A3.39-41). *2008 SNA* paragraph 22.123, *BPM6* A2.68, and paragraph 6.22 of the 2013 edition of the *External Debt Statistics Guide for Compilers and Users* (*EDS Guide*) add that concessional loans might also be designed with other characteristics aimed at conveying a benefit to the debtor, such as more favorable grace and maturity periods.

3.   **Concessional lending is frequently observed in government accounts, such as in transactions between governments and/or international organizations.** Concessional lending can either be provided originally at inception or can arise later on during debt restructurings. Concessional lending is also observed at the national level with student loans or housing loans,[5] inter alia. Whereas low interest rate loans/receivables are tools predominantly used by governments, they are also observed in the private sector as for instance part of regular commercial incentives extended by market producers to their clients (see Annex V). These would, however, not qualify as concessional loans because indeed the difference between the fair value and the redemption value of these loans is not intended as a transfer.[6]

4.   **Therefore, this Guidance Note (GN) is restricted to low interest loans provided in a non-commercial context, including entities acting on behalf of others,[7] with an intention to convey a benefit.** The GN also looks into the treatment of the grant element of concessional loans that are provided as clear substitutes of regular (or other) contributions to agencies. Further, the GN tackles the related issue of the appropriate discount rate for measuring the transfer component in Annexes II and III. A corollary of the recommendations in this note is that lenders extending "cheap" loans, such as development or international agencies (e.g., the International Monetary Fund), are *de facto* not extending concessional loans in the meaning of this GN (see paragraph 13), as they have themselves very low (average) funding costs.[8]

5.   **The recording of concessional loans is related to GN F.9 "Valuation of Loans (Fair Value)", to the extent that GN F.9 elaborates on the valuation of loans in general.** However, GN F.9 is concerned with the problem of re-estimates in loans value (either for NPL or for all loans), which does not concern this GN (which is only dealing with the problem of valuation at inception), although concessional

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[5] See for instance Eurostat's 2006 advice to Belgium on Investments in the Social Sector.

[6] Other examples of low interest in the private sector that do not constitute transfers are for instance wages in kind in the form of low interest loans, intra-group low interest rate loans/receivables that constitute transfer pricing events or zero- interest bridge loan provided by a banker engaged in a Merger and Acquisition deal.

[7] Concessional loans may be granted by market producers, notably public corporations (e.g., development banks), on behalf of government, which may then require rerouting.

[8] Using the funding cost of the debtor may be appropriate in situations of concessional loans that are provided as clear substitutes of regular or other contributions to beneficiaries.

loans could indeed be subject to re-estimation when time passes following the discussions of GN F.9 (re-estimation versus initial valuation).

ISSUES FOR DISCUSSION

Issue 1: Statistical Treatment of Concessional Lending

6.   **While current statistical manuals recognize that concessional loans contain a transfer element, they do not prescribe (despite some ambiguities) recording any expense (revenue)[9] transaction in the core accounts to capture the transfer element on these loans.** Instead, macroeconomic statistics manuals generally prescribe reporting the transfer element as a memorandum item in supplementary tables.[10] As a result, the implied transfer/grant element of such loans currently affects solely and indirectly the net lending/net borrowing of the creditor or debtor over time in the core accounts, through the difference between the loan rate and their own funding rates (or the forgone property income on their assets). Though the net lending/net borrowing cumulated over time properly captures the opportunity cost of concessionary loans granted or received, the current recording nonetheless does not properly account for the fundamental notion of time value of money.

7.   **Although the standards are in general not clear on how, and when, to recognize such a transfer/grant** (see for example *2008 SNA,* paragraph A4.44; *BPM6,* paragraph 12.51; and *European System of Accounts 2010 (ESA 2010),* paragraphs 20.241 and 20.242) and point to memorandum items and supplementary information,[11] **an exception is the *EDS Guide*** which goes further, with paragraphs 2.39 and 14.13 recommending reducing the principal of nonnegotiable long-term debt instruments that charge no interest.

8.   **The manuals (except the *EDS Guide*) prescribe reporting the concessional loan in the balance sheets of both debtor and creditor at inception at their face/nominal value.** The face value is thus regarded as the adequate interpretation of nominal value for concessional loans, rather than their discounted value/fair value as already applicable for low-interest commercial loans/receivables or for low interest loans extended by employers to their employees in macroeconomic statistics manuals (see *2008 SNA,* paragraphs 7.54 and 22.123-4; *ESA 2010,* paragraph 20.241–2; *BPM6,* paragraphs 12.51 and 13.33; and *GFSM 2014,* paragraphs 6.17, 7.246 (and its footnote 67), and A.340).

9.   **There is then a mismatch between the clear reference in all macroeconomic statistics manuals to the presence of a gift/transfer and the absence of an explicit/uniform recommendation for recording** (and measuring) it in the core accounts (rather than just as supplementary information) and how this recording should take place. *2008 SNA* paragraph 22.124, *BPM6* paragraph 12.51, and *GFSM 2014* paragraph A3.40 refer to this lack of agreement on how to record such instruments.

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[9] Expenditure/expense from the creditor perspective, and revenue from the debtor perspective.

[10] A reference is made, for instance in *BPM6* paragraph A2.68, that this would be the case whenever such transfers are significant.

[11] Both *BPM6* paragraph 1.15 (b) and *GFSM* 2014 Table A7.1 indicate that memorandum items/supplementary information cover information not within the core accounts and thus do not contribute to balancing items and aggregates.

10. **This GN considers three options for recording concessional loans:**

    a. **Option A:** No change in the updated BPM and SNA. This implies continuing to record concessional loans at their face/nominal value at inception with no further imputation and continuing to record the transfer element as a memorandum item/supplementary information;[12]

        1. **Sub-option A1:** No change in the updated BPM and SNA in the core accounts but provide more detailed information (than currently requested) on the transfer element, notably the fair value of the loan and the entailed accrued interest in memorandum/supplementary information.

    b. **Option B:** Record concessional loans at their face/nominal value at inception, but recognize the transfer element in the core accounts, spread over time, by increasing the stream of interest earned (D.41) on the loan using a suitable non-concessional rate together with a matching transfer expense (deficit[13] neutral in every accounting period)

    c. **Option C:** Partition concessional loans at inception between a "genuine" loan element (F.4) and an explicit "transfer element", followed later on by imputed interest receivable (D.41, of the same cumulated size over the lifetime of the loan) that capitalizes on the new nominal value/principal of the loan over time, to reach the face value before maturity (deficit neutral across the life of the loan).

11. **The numerical example presented in the below table demonstrates the recording entries for each of the three options (for full details see Annex II).** A creditor grants on January 1 a bullet-loan (5 years, redeemed on December 31) to a debtor in the amount of 100 Units with a contractual zero interest rate, and its own average funding interest rate is 5 percent,[14] which is the discount rate applied. Statistical entries under the three options are summarized for the creditor and the debtor.

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[12] Supplementary/memorandum information are not used in deriving totals and balancing items.

[13] This note uses the term "deficit" as a substitute for the net lending/net borrowing concept.

[14] For the sake of simplicity, this example does not depict the funding costs of the creditor. For a clearer picture in that regard, please see Annex II.

Table 1. Recording of Concessional Loans Under the Three Proposed Options

Creditor

Item	Option	Year 1 Inception	Year 1 Rest of Year 1	Year 2	Year 3	Year 4	Year 5	Total
Financial Asset	A	100	100	100	100	100	0	
	B	100	100	100	100	100	0	
	C	78.4	82.3	86.4	90.7	95.2	0	
Revenue / Resources (interest)	A	0	0	0	0	0	0	0
	B	0	5	5	5	5	5	25.0
	C	0	3.9	4.1	4.3	4.5	4.8	21.6
Expense / Uses (transfers)	A	0	0	0	0	0	0	0
	B	0	5	5	5	5	5	25.0
	C	21.6	0	0	0	0	0	21.6
Net Lending / Net Borrowing	A	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0
	C	-21.6	3.9	4.1	4.3	4.5	4.8	0

Debtor

Item	Option	Year 1 Inception	Year 1 Rest of Year 1	Year 2	Year 3	Year 4	Year 5	Total
Financial Liability	A	100	100	100	100	100	0	
	B	100	100	100	100	100	0	
	C	78.4	82.3	86.4	90.7	95.2	0.0	
Revenue / Resources (transfers)	A	0	0	0	0	0	0	0
	B	0	5	5	5	5	5	25.0
	C	21.6	0	0	0	0	0	21.6
Expense / Uses (interest)	A	0	0	0	0	0	0	0
	B	0	5	5	5	5	5	25.0
	C	0	3.9	4.1	4.3	4.5	4.8	21.6
Net Lending / Net Borrowing	A	0	0	0	0	0	0	0
	B	0	0	0	0	0	0	0
	C	21.6	-3.9	-4.1	-4.3	-4.5	-4.8	0

Note: The net present value at inception of the stream of payments {0, 0, 0, 0, 100}, at a 5 percent discount rate, is 78.4 U. The transfer recorded at inception is thus 21.6 (=100-78.4). Note that end Year 5, just before redemption, in all Options the instrument is valued at its face value 100. A full description, with all related entries, is presented in Annex II.

12.   **A related issue is whether the rule that would be applied to new concessional loans should also be extended to loans refinancing, restructuring, or rescheduling (if or because the restructuring is seen as the delayed manifestation of an initial intention to convey a benefit to the debtor); or whether there may be good reasons to allow a deviation in recording (if or because the restructuring is seen as imposed on the creditor, analogous to bankruptcy).** This concerns cases in which the creditor offers a reduction in interest rate (instead of a reduction in principal) or an extended grace period for existing loans, which thus become concessional. This GN recommends that the same rules applied for new concessional lending should be extended to cases of debt restructuring (see Annex VII for a detailed discussion).

13.   **In addition, the choice of the most suitable nonfinancial transaction to account for the transfer element of a concessional loan is also not always straightforward.** Thus, an analysis of the exact nature of the operation underlying each concessional loan seems necessary to ascertain the most appropriate nonfinancial transaction to record the corresponding gift element (see discussion on this in Annex VI).

14.   **There is often a discussion on what would be the appropriate discount rate to measure the transfer component (and thus to define a concessional loan).** There could be various approaches for this, namely the observed funding cost of the creditor, the OECD's Commercial Interest Reference Rates (CIRR), or the funding cost of the borrower. Using the funding cost of the creditor or the CIRR is conceptually appropriate and has the merit to limit the scope of the GN to undisputable cases of subsidized lending (see Annex III for a more detailed discussion). This GN takes a conservative approach and recommends using the average cost of the grantor/creditor. The fact that the creditor extends loans at an interest rate below its own current financing terms provides an undisputable indication of the presence of a benefit being conveyed by the creditor. The GN also recognizes that the CIRR seem more aligned

with current orientations of macroeconomic statistics manuals. The CIRR also have the considerable merit of being easily observable and are generally fairly low rates reflecting very low credit risks.

Issue 2: Statistical Treatment of the Grant Element of Concessional Loans Provided as Substitutes of Contributions to Agencies

15. **A number of compilers have been confronted with cases where governments as donors provide their official contributions (or other grants) to agencies (or other beneficiaries) in the form of long-term zero-interest loans—with the beneficiary calculating the implied "grant element" thereby received.** [15] The transfer element of the concessional loan is a different form for donors to fulfil their promise/obligation toward these beneficiaries. [16]

16. **In many cases, compilers regard these provisions of concessional loans as substitutes for "regular" contributions and thus as clear-cut cases where the grant/transfer element of the loan should be recognized in the core accounts, at the time the loan is disbursed, so as to ensure the prevalence of the substance over form principle.** Nonetheless, consistent recording of transfers, regardless of the form they take, is desirable. Importantly, one may fear that governments increasingly substitute transfer schemes with low-interest loans schemes unless the accounting treatments would be homogenized. Substance over form should be applied because, here, the grant/transfer element of the concessional loans is provided as an explicit substitute to a normal grant (i.e., when these contributions to beneficiaries are expensed). As a result, a recording consistent to that of regular transfer is required.

17. **Further, a consistent treatment would be required for contributions to beneficiaries that are not expensed, for instance when existing rules prescribe recording a transaction in equity in the accounts of the donor for paid-in capital.** In such cases, the concessional loans provided to such beneficiaries should still be partitioned at inception, but in this case between a loan and an equity element.

18. **Given the above, we propose two options to address this specific issue if the envisaged Option C recommended for the first issue were to be rejected:**

- **Option A:** Macroeconomics statistics manuals should not foresee a specific rule for the cases where a concessional loan is offered as a clear substitute for a contribution/transfer.

- **Option B:** Macroeconomics statistics manuals should specifically foresee that the grant/transfer element provided as substitute to regular contributions should be explicitly recorded in the core accounts at inception, thus ensuring the substance over form principle.

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[15] This is for example the case for Multinational Development Banks (MDBs). See, as an example, paragraphs 149 to 150, Annex 9, as well as Table 1b of Annex 11 of the Report from the Executive Directors of the International Development Association to the Board of Governors: Additions to IDA Resources - Eighteenth Replenishment. This Issue 2 is independent from the recording of concessional loans that MDBs may extend themselves.

[16] Indeed, in some cases, the annual reports published by beneficiaries typically may identify and precisely measure these grant elements (using their funding rate). Furthermore, in those cases where regular contributions provide proportional voting rights to donors, the grant element of the concessional loan (but not the whole loan itself) may also provide equivalent voting rights. This is the case for contributions to some MDBs (see preceding footnote).

RECOMMENDATION FOR ISSUE 1–OPTION C

19.   **This GN recommends Option C as it is consistent with the economic principle of time value of money.** The partitioning of a low interest rate loan at inception follows the substance over form principle, and also represents better the net assets of both creditor and debtor over time (a view also shared by International Public Sector Accounting Standards (IPSAS)). This is also observed in the memorandum items in current macroeconomic statistics manuals which refer to the recording moment of the transfer element at inception (see *BPM6,* paragraph 12.51), suggesting a preference for Option C. Option C does not imply a present value at market price approach during the lifetime of the low-interest rate loans (i.e., with regular re-estimates of discount rate and loan value); it is therefore consistent with the valuation of normal loans where the contract rate is considered an appropriate discount rate.

20.   **Further, in case where a creditor sells off (possibly rapidly) the concessional loan granted, thus at a (steep) discount, a problem would exist for Options A, A1, and B** (see Annex VIII)**, because the transfer could permanently escape the deficit (net lending/net borrowing) if the difference in value is considered as revaluation (as is normally the case following general rules on loan resales—see for instance, *BPM6,* paragraph 9.33; and *ESA 2010,* paragraph 6.58).** To obviate this difficulty, *ESA 2010* already specifies that the loss on a sale of government-to-government loans requires a capital transfer expenditure from the initial creditor (*ESA 2010,* paragraph 20.229) to the debtor (*ESA 2010,* paragraph 20.230) at time of resale, unless the difference in value merely reflects changes in risk free rates (*ESA 2010,* paragraph 20.231). However, this stop-gap solution of the *ESA 2010* presents the benefit conveyed at time of resale (which is sometimes strongly contested, as the debtor may not even be involved in the transaction) rather than when the loan was originally granted (which is when *de facto* the benefit is conveyed). The only way to prevent this counterintuitive outcome without permitting the deficit impact to escape the core accounts is to record the transfer at inception—Option C.

21.   **On the other hand, following *BPM6* paragraph A2.69, it can be argued that recording a transfer element at inception might prove unwarranted or premature given the possibility that a concessional loan is retired before maturity (then implying a revision of the original capital transfer according to this *BPM6* paragraph), which in turn could support Option B.** However, it is highly unlikely that a debtor would redeem a concessional loan in anticipation and replace it with a loan with more demanding conditions. A reimbursement by anticipation would either entail replacing one concessional loan for another one with even better conditions for the debtor, which should not create difficulties, or reflect significant/considerable decline in market rates. In the latter case, the difference in nominal value should be treated like any early redemption on loans.

22.   **Similarly, it is argued that Option C is unwarranted as it could allow debtors or creditors to play with the time of deficit impact, by conveniently choosing the time of the borrowing, in a manner that Option A and B would not.** For instance, for some, its implementation could be challenged by the consideration that recording a lower value of loans for the debtor would result in lower stock of debt positions for many low-income countries' governments, which they believe may increase their appetite for more borrowing. While we recognize this challenge, it does not change the fact that the transfer is indeed definitely extended by the creditor and acquired by the debtor at inception. The main issue therefore remains that of unduly delaying the deficit impact of the grantor, which Options A and B allow.

23.   **It is acknowledged that the usual reading of SNA, BPM, and ESA (Option A – status quo) has the merit of simplicity.** The main argument in favor of this option is that the "cost" for the creditor—which ultimately is a proxy to the benefit conveyed—is already adequately captured by the difference between the (low) interest earned and the higher funding costs, so that the creditor's net assets deteriorate automatically and satisfactorily over time without the need for further entries. It is also argued that the nominal valuation of a loan requires recording it in the balance sheet at inception for the amounts lent.

24.   **In addition, we note that Option B has the merit to correct the misreporting of expenditure, by recognizing a transfer from the creditor to the debtor in the core accounts spread over the life of the instrument (including appropriately allocating Classification of Functions of Government (COFOG)).**[17] The approach in Option B is also already foreseen by the *2008 SNA* paragraph 7.126 in the case of the Central Bank lending to priority industries below market rate. The *2008 SNA* section "*The special case of interest rates set by the central bank*" (paragraphs 7.122 to 7.126) prescribes to recognize a tax or a subsidy, rerouted through government, in the case where central banks use their special powers to oblige market participants to enter in certain transactions. Option B therefore extends this existing rule for central banks to any government lending (or lending on behalf of government, notably by development banks) at below market rates.[18] Paragraph 7.124 and 7.125 concern liabilities of central banks (and therefore deposits).

25.   **It is noted that to the extent that the item being subsidized is interest and that interest needs to be accrued over time, the transfer should be accordingly spread.** However, Option B overestimates the subsidy component to the extent that it does not use a present value approach, and therefore the cumulated subsidy/transfer recorded in the accounts is larger than that recorded at inception under Option C. The cumulated transfer/subsidy increases without limit when the maturity of the loan increases under Option B, while it increases up to a certain limit (e.g., the loan value, for zero interest rate loans) under Option C.

26.   **The co-authors acknowledge that there are practical challenges for implementing Options B or C especially for countries with low statistical capacity.** Proponents of Option A argue that setting up the statistical infrastructure for this collection/compilation of Option C would imply significant efforts for compilers because for many countries this development would be resource intensive, especially in cases where a large number of concessional loans are involved. However, in the case of compilers using IPSAS-compliant financial statements, or equivalent, accounting data could be used to automate implementation.

27.   **Consultation within FITT on Issue 1 indicated majority support for Option C.** Options A/A1 were rejected mainly because of the view that macroeconomic statistics must explicitly capture all transfers extended by government within the core accounts, thereby increasing transparency and accuracy of the accounts. Although both Option B and C would recognize the transfer element in the core accounts, members preferred Option C to Option B because it would recognize the transfer element at the

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[17] In accordance with the debtor principle, the subsidy/transfer to be recorded each period is fixed and would not change according to market rates, so that the total transfer is determined at inception.

[18] Option C would merely require prescribe rerouting a subsidy/transfer at inception, without changing the prescription for rerouting of this SNA section.

correct period (i.e., at inception) and provide the present value of the loans consistent with international accounting standards. Two members who did not support Option C, favored Option A1 arguing that it ensures the compilers present more detailed information, enabling interested users to undertake a better assessment of the implications of the transfer element on the core accounts. Two other members prefer either Option B or C.

RECOMMENDATION FOR ISSUE 2–OPTION B

28.   **This GN considers that the transfer element of concessional loans granted as substitute for regular or other transfers/grants to beneficiaries needs to be recorded in any case in the core accounts consistently to regular contributions or other transfers/grants and recommends that macroeconomic statistics manuals should explicitly clarify this.**[19] Recording at face value the low/zero-interest rate loans extended by donors to these beneficiaries in place of outright grants should not be permitted, because it defers or changes the deficit impact of the transfer by merely engaging in a financial operation, which would amount to outright fiscal illusion maneuver. Substance over form directs that paying contributions owed through a direct payment or through a much larger payment to be then refunded should impact the deficit for the same amount and at the same time.

29.   **Consultation within FITT on Issue 2 indicated majority support for Option B.** Members in support of Option B also noted that they preferred a consistent treatment of Issues 1 and 2. However, some FITT members argued that the beneficiary institutions (in many cases MDBs) represent somewhat unique institutions, for which separate, specific guidance should be developed, rather than conflating these funding arrangements with the broader issue of concessional loans. While others were not convinced that specific guidance on the treatment of payments to such beneficiary institutions should be included in either the SNA or BPM, but should be reserved for compilation manuals, or similar.

OUTCOMES OF THE DISCUSSIONS AT THE OCTOBER 2022 JOINT COMMITTEE AND AEG MEETING

30.   **The Committee and the AEG agreed with the following recommendations of the SNA and BPM editorial teams presented in the [Issue Note](#).**

- To never record a transfer element for concessional lending in the "central framework" of national accounts and external sector statistics, except for concessional loans provided by employers to employees.

- To remove the exception made for loans/deposits by central banks, as currently included in the *2008 SNA* and *GFSM 2014*.

- To classify the transfer element in the case of concessional loans provided by employers to employees as a continuous stream of current transfers in the "central framework" and in the case of concessional loans provided in a non-market context (for supplementary tables) as capital transfers at inception.

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[19] Which is consistent with Option C in Issue 1.

Annex I. Relevant References in Macroeconomic Statistics Manuals

Manual	Paragraph	Keyword/ Key Idea
2008 SNA	3.66	Partitioning
	3.131	Transfer pricing
	3.134	Concessional pricing in non-commercial loans
	3.144	Long-term trade credit recorded at reduced value
	7.54	Wages in kind – concessional loans to employees
	7.122-7126	The special case of interest rates set by the central bank
	22.97	Payable tax credits are to be expensed
	22.123	Definition of concessional lending
	22.124	Recording transfer, doubt, supplementary tables Current international cooperation
	A4.44	Research agenda, transfer or on-going subsidy
BPM6	1.43, (h)	Research agenda
	3.79	Non-commercial transactions taking place at prices that include some element of grant
	9.33	When loans are sold at a value different from nominal value, other price changes should be recorded to account for such difference.
	12.51	Definition, current international cooperation with adjusted interest, supplementary information in the meanwhile to be consistent with nominal valuation
	13.33	There is a transfer element which is to be shown as supplementary data
	A2.67	Debt concessionality definition in debt reorganization
	A2.68-70	Supplementary information. Some details on how to assure nominal valuation. Early redemption and substitution for a new loan.
ESA 2010	4.05k	Low interest rate loans as part of wages
	6.58	Sale of a loan is a revaluation
	20.229-31	The loss on a sale of government-to-government loans leads to a capital transfer expenditure from the initial creditor to the debtor, unless reflecting changes in risk free rates
	20.241	Recognition of grant element
	20.242	Memorandum item
GFSM 2014	3.123	Concessional lending definition, recording
	5.108	Loans from employers at reduced interest rates
	6.17	Wages in kind – concessional loans to employees
	7.246 (and footnote 67)	Concessional lending definition, recording

Manual	Paragraph	Keyword/ Key Idea
	9.12	Valuation, concessional lending
	A3.39-40	Concessional lending definition, recording
EDS Guide	2.39	Indication that for long-term non-negotiable debt instruments that accrue no interest, the principal of the instrument should be reduced, and interest should be accrued at an appropriate rate
	6.22	Definition of concessional lending
	6.23	Measurement of discount rate
	14.13	Supports present value measurement of stocks in concessional loans in the context of DSA

Annex II. Recording Options on Issue 1 in Detail

1.   This Annex II illustrates, by numerical examples, the national account impact (nonfinancial, financial accounts and balance sheets, using *2008 SNA* codes) of the three recording options discussed under Issue 1. Aside from further detailing the case of the bullet loan presented in the core text, it also presents a (more common) loan with a constant annuity.

Bullet Loan

2.   Suppose a creditor grants on January 1 a 5-year bullet loan (redeemed on December 31, five years later) to a debtor, in the amount of 100 Units (U), with a contractual zero interest rate, whereas the market interest rate is at 5 percent, which is also the discount rate applied. For the sake of simplicity, let us not look at the own financing of the creditor. The three options A/B/C are summarized in the following way.

Table 2. Bullet Loan with a Zero Interest

Party	Item	Option	Oper.	Year 1 Inception	Rest of Year 1	Year 2	Year 3	Year 4	Year 5	Total
Creditor	Financial Asset	A	F.2	-100	0	0	0	0	100	0
			F.4a	100	0	0	0	0	-100	0
			AF.2	-100	-100	-100	-100	-100	0	
			AF.4a	100	100	100	100	100	0	
			B.9f	0	0	0	0	0	0	0
		B	F.2	-100	0	0	0	0	100	0
			F.4	100	0	0	0	0	-100	0
			AF.2	-100	-100	-100	-100	-100	0	
			AF.4	100	100	100	100	100	0	
			B.9f	0	0	0	0	0	0	0
		C	F.2	-100	0	0	0	0	100	0
			F.4	78.4	3.9	4.1	4.3	4.5	-95.2	0
			AF.2	-100	-100	-100	-100	-100	0	
			AF.4	78.4	82.3	86.4	90.7	95.2	0	
			B.9f	-21.6	3.9	4.1	4.3	4.5	4.8	0
	Revenue / Resources (Expense / Uses)	A	D.41r	0	0	0	0	0	0	0
			D.7/D.9p	0	0	0	0	0	0	0
			B.9	0	0	0	0	0	0	0
		B	D.41r	0	5	5	5	5	5	25
			D.7/D.9p	0	5	5	5	5	5	25
			B.9	0	0	0	0	0	0	0
		C	D.41r	0	3.9	4.1	4.3	4.5	4.8	21.6
			D.7/D.9p	21.6	0	0	0	0	0	21.6
			B.9	-21.6	3.9	4.1	4.3	4.5	4.8	0

Party	Item	Option	Oper.	Year 1 Inception	Rest of Year 1	Year 2	Year 3	Year 4	Year 5	Total
Debtor	Financial Liability	A	F.2	100	0	0	0	0	-100	0
			F.4l	100	0	0	0	0	-100	0
			AF.2	100	100	100	100	100	0	
			AF.4l	100	100	100	100	100	0	
			B.9f	0	0	0	0	0	0	0
		B	F.2	100	0	0	0	0	-100	0
			F.4	100	0	0	0	0	-100	0
			AF.2	100	100	100	100	100	0	
			AF.4	100	100	100	100	100	0	
			B.9f	0	0	0	0	0	0	0
		C	F.2	100	0	0	0	0	-100	0
			F.4	78.4	3.9	4.1	4.3	4.5	-95.2	0
			AF.2	100	100	100	100	100	0	
			AF.4	78.4	82.3	86.4	90.7	95.2	0.0	
			B.9f	21.6	-3.9	-4.1	-4.3	-4.5	-4.8	0
	Revenue / Resources (Expense / Uses)	A	D.41p	0	0	0	0	0	0	0
			D.7/D.9r	0	0	0	0	0	0	0
			B.9	0	0	0	0	0	0	0
		B	D.41p	0	5	5	5	5	5	25
			D.7/D.9r	0	5	5	5	5	5	25
			B.9	0	0	0	0	0	0	0
		C	D.41p	0	3.9	4.1	4.3	4.5	4.8	21.6
			D.7/D.9r	21.6	0	0	0	0	0	21.6
			B.9	21.6	-3.9	-4.1	-4.3	-4.5	-4.8	0

3.   The nominal value of 78.4 U in Option C represents the net present value of a stream of payments over five years under a bullet loan {0, 0, 0, 0, 100} with a 5 percent market interest rate/discount rate.

Thus, in the case of Option C, the face value of a zero-interest rate loan (100 CU) is partitioned at inception between a loan element (78.4 U) and a grant/transfer element (21.6 U). Interest accrues yearly, and capitalizes, on that nominal value/principal.

4.   On the other hand, both Options A and B presume a constant stock of the loan over its lifetime. In the case of Option B, interest is imputed over that constant stock, though it does not capitalize with the instrument because it is neutralized with an imputed transfer by the same amount.

5.   Thus, Options A and B exhibit the same deficit profile, with Option B only showing more expense and revenue compared to Option A. Option C exhibits a completely different deficit profile, with a one-off impact at inception and a reverse deficit impact thereafter. All three options have the same cumulated deficit impact, however. Furthermore, at (but before) redemption, the stock of loan is equal for all options—100 U.

6.   Note that the cumulated imputed interest accrued on this loan is different between Options B and C. This automatically follows the fact that whereas in Option B interest of 5 U (=5 percent of 100) accrues on a constant nominal value of 100 U, in the case of Option C interest is accrued on a smaller nominal value that increases gradually following interest capitalization. Thus, the amount of transfer received (debtor) and paid (creditor) is higher in the case of Option B.

Loan with a Constant Annuity

7.   Suppose now a creditor grants, on January 1, a 5-year loan (gradually redeemed) to a debtor, in the amount of 100 Units (U), with a contractual zero interest rate, whereas the market interest rate is at 5 percent, which is also the discount rate applied. Let us assume the debtor redeems the loan with constant annuities of 20 U. For the sake of simplicity, let us not look at the own financing of the creditor. The three options A/B/C are summarized in the following way.

8.   The nominal value of 86.6 U in Option C represents the net present value of a stream of payments over five years under constant annuities {20, 20, 20, 20, 20} with a 5 percent market interest rate/discount rate. Thus, in the case of Option C, the face value of a zero-interest rate loan (100 CU) is partitioned at inception between a loan element (86.6 U) and a grant/transfer element (13.4 U). Interest accrues yearly, and capitalizes, on that nominal value/principal.

9.   On the other hand, both Options A and B presume that the stock of the concessional loan reduces by 20 U every year. In the case of Option B, interest is imputed over that decreasing stock, and is neutralized with an imputed transfer by the same amount.

10.   Thus, Options A and B exhibit the same deficit profile, with Option B only showing more expense and revenue compared to Option A. Option C exhibits a completely different deficit profile, with a one-off impact at inception (13.4 U) and a reverse deficit impact thereafter, in the form of imputed interest. All three options have the same cumulated deficit impact, however.

11.   Note that the imputed interest accruing on this loan is different under Options B and C. This automatically follows from the fact that in Option B interest of 5 percent accrues on an initial nominal value of 100 U, whereas in the case of Option C interest of 5 percent is accrued on an initial nominal value of 86.6 U. Thus, the amount of transfer received (debtor) and paid (creditor) is higher in the case of Option B.

Table 3. Loan with Constant Annuity/Zero Interest

Creditor

Party	Item	Option	Oper.	Year 1 Inception	Year 1 Rest of Year 1	Year 2	Year 3	Year 4	Year 5	Total
Creditor	Financial Asset	A	F.2	-100	20	20	20	20	20	0
			F.4	100	-20	-20	-20	-20	-20	0
			AF.2	-100	-80	-60	-40	-20	0	
			AF.4	100	80	60	40	20	0	
			B.9f	0	0	0	0	0	0	0
		B	F.2	-100	20	20	20	20	20	0
			F.4	100	-20	-20	-20	-20	-20	0
			AF.2	-100	-80	-60	-40	-20	0	
			AF.4	100	80	60	40	20	0	
			B.9f	0	0	0	0	0	0	0
		C	F.2	-100	20	20	20	20	20	0
			F.4	86.6	-15.7	-16.5	-17.3	-18.1	-19.0	0
			AF.2	-100	-80	-60	-40	-20	0	
			AF.4	86.6	70.9	54.5	37.2	19.0	0.0	
			B.9f	-13.4	4.3	3.5	2.7	1.9	1.0	0
	Revenue / Resources (Expense / Uses)	A	D.41r	0	0	0	0	0	0	0
			D.7/D.9p	0	0	0	0	0	0	0
			B.9	0	0	0	0	0	0	0
		B	D.41r	0.0	5.0	4.0	3.0	2.0	1.0	15
			D.7/D.9p	0.0	5.0	4.0	3.0	2.0	1.0	15
			B.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		C	D.41r	0.0	4.3	3.5	2.7	1.9	1.0	13.4
			D.7/D.9p	13.4	0.0	0.0	0.0	0.0	0.0	13.4
			B.9	-13.4	4.3	3.5	2.7	1.9	1.0	0.0

Debtor

Party	Item	Option	Oper.	Year 1 Inception	Year 1 Rest of Year 1	Year 2	Year 3	Year 4	Year 5	Total
Debtor	Financial Liability	A	F.2	100	-20	-20	-20	-20	-20	0
			F.4	100	-20	-20	-20	-20	-20	0
			AF.2	100	80	60	40	20	0	
			AF.4	100	80	60	40	20	0	
			B.9f	0	0	0	0	0	0	0
		B	F.2	100	-20	-20	-20	-20	-20	0
			F.4	100	-20	-20	-20	-20	-20	0
			AF.2	100	80	60	40	20	0	
			AF.4	100	80	60	40	20	0	
			B.9f	0	0	0	0	0	0	0
		C	F.2	100	-20	-20	-20	-20	-20	0
			F.4	86.6	-15.7	-16.5	-17.3	-18.1	-19.0	0
			AF.2	100	80	60	40	20	0	
			AF.4	86.6	70.9	54.5	37.2	19.0	0.0	
			B.9f	13.4	-4.3	-3.5	-2.7	-1.9	-1.0	0
	Revenue / Resources (Expense / Uses)	A	D.41p	0	0	0	0	0	0	0
			D.7/D.9r	0	0	0	0	0	0	0
			B.9	0	0	0	0	0	0	0
		B	D.41p	0	5.0	4.0	3.0	2.0	1.0	15
			D.7/D.9r	0	5.0	4.0	3.0	2.0	1.0	15
			B.9	0	0	0	0	0	0	0
		C	D.41p	0	4.3	3.5	2.7	1.9	1.0	13.4
			D.7/D.9r	13.4	0	0	0	0	0	13.4
			B.9	13.4	-4.3	-3.5	-2.7	-1.9	-1.0	0

Loan with a Constant Annuity, with Own Financing Costs of the Creditor

12.   The following presumes the exact same conditions regarding the concessional loan provided by the creditor to the debtor compared to the previous exercise. Thus, the events/table for the debtor are exactly the same, as well as the events/table for the creditor concerning that concessional loan.

13.   Nonetheless, now the creditor also incurs, on January 1, a 5-year loan liability (redeemed gradually overtime), with a nominal value of 100 U, with a contractual interest rate equal to the market interest rate of 5 percent, thus being its marginal funding rate. This loan liability generates a stream of payments over five years under constant annuities equal to {23.1, 23.1, 23.1, 23.1, 23.1}. For the lender, the table shows the net lending/net borrowing (B.9) impact reflecting the interest funding costs (5 U in year 1, declining over the years) (D.41p) cumulating to 15.5 U over the years.

14.   Options A and B exhibit the same deficit profile, which equals the interest accrued and paid over the lifetime of the creditor's loan liability, with Option B only showing more expense and revenue compared to Option A, concerning the imputations for the concessional loan. Option C exhibits a

completely different deficit profile, with a one-off impact at inception (13.4 U) and a deficit impact thereafter which is nonetheless smoother than that of Options A and B, as it accounts for both the interest accrued and paid on the loan liability of the creditors but also the imputed interest receivable on the concessional loan with a nominal value of 86.6 U. All three options have the same cumulated deficit impact for the creditor, however, of 15.5 U.

Table 4. Loan with Constant Annuity/Zero Interest (with Own Financing Cost of the Creditor)

Creditor

Item	Option	Oper.	Year 1 Inception	Year 1 Rest of Year 1	Year 2	Year 3	Year 4	Year 5	Total
Financial Asset	A	F.2	0	-3.1	-3.1	-3.1	-3.1	-3.1	-15.5
		F.4a	100	-20	-20	-20	-20	-20	0
		F.4I	100	-18.1	-19.0	-20.0	-21.0	-22.0	0
		AF.2	0	-3.1	-6.2	-9.3	-12.4	-15.5	
		AF.4a	100	80	60	40	20	0	
		AF.4I	100	81.9	62.9	42.9	22.0	0.0	
		B.9f	0	-5.0	-4.1	-3.1	-2.1	-1.1	-15.5
	B	F.2	0	-3.1	-3.1	-3.1	-3.1	-3.1	-15.5
		F.4a	100	-20	-20	-20	-20	-20	0
		F.4I	100	-18.1	-19.0	-20.0	-21.0	-22.0	0
		AF.2	0	-3.1	-6.2	-9.3	-12.4	-15.5	
		AF.4a	100	80	60	40	20	0	
		AF.4I	100	81.9	62.9	42.9	22.0	0	
		B.9f	0	-5.0	-4.1	-3.1	-2.1	-1.1	-15.5
	C	F.2	0	-3.1	-3.1	-3.1	-3.1	-3.1	-15.5
		F.4a	86.6	-15.7	-16.5	-17.3	-18.1	-19.0	0
		F.4I	100.0	-18.1	-19.0	-20.0	-21.0	-22.0	0
		AF.2	0	-3.1	-6.2	-9.3	-12.4	-15.5	
		AF.4a	86.6	70.9	54.5	37.2	19.0	0	
		AF.4I	100	81.9	62.9	42.9	22.0	0	
		B.9f	-13.4	-0.7	-0.5	-0.4	-0.3	-0.1	-15.5
Revenue / Resources (Expense / Uses)	A	D.41r	0	0	0	0	0	0	0
		D.7/D.9p	0	0	0	0	0	0	0
		D.4pay	0	5.0	4.1	3.1	2.1	1.1	15.5
		B.9	0	-5.0	-4.1	-3.1	-2.1	-1.1	-15.5
	B	D.41r	0	5.0	4.0	3.0	2.0	1.0	15.0
		D.7/D.9p	0	5.0	4.0	3.0	2.0	1.0	15.0
		D.4pay	0	5.0	4.1	3.1	2.1	1.1	15.5
		B.9	0	-5.0	-4.1	-3.1	-2.1	-1.1	-15.5
	C	D.41r	0	4.3	3.5	2.7	1.9	1.0	13.4
		D.7/D.9p	13.4	0	0	0	0	0	13.4
		D.4pay	0	5.0	4.1	3.1	2.1	1.1	15.5
		B.9	-13.4	-0.7	-0.5	-0.4	-0.3	-0.1	-15.5

Debtor

Item	Option	Oper.	Year 1 Inception	Year 1 End of Year 1	Year 2	Year 3	Year 4	Year 5	Total
Financial Liability	A	F.2	100	-20	-20	-20	-20	-20	0
		F.4	100	-20	-20	-20	-20	-20	0
		AF.2	100	80	60	40	20	0	
		AF.4	100	80	60	40	20	0	
		B.9f	0	0	0	0	0	0	0
	B	F.2	100	-20	-20	-20	-20	-20	0
		F.4	100	-20	-20	-20	-20	-20	0
		AF.2	100	80	60	40	20	0	
		AF.4	100	80	60	40	20	0	
		B.9f	0	0	0	0	0	0	0
	C	F.2	100	-20	-20	-20	-20	-20	0
		F.4	86.6	-15.7	-16.5	-17.3	-18.1	-19.0	0
		AF.2	100	80	60	40	20	0	
		AF.4	100.0	84.3	67.9	50.6	32.5	13.4	
		B.9f	13.4	-4.3	-3.5	-2.7	-1.9	-1.0	0
Revenue / Resources (Expense / Uses)	A	D.41p	0	0	0	0	0	0	0
		D.7/D.9r	0	0	0	0	0	0	0
		B.9	0	0	0	0	0	0	0
	B	D.41p	0.0	5.0	4.0	3.0	2.0	1.0	15.0
		D.7/D.9r	0.0	5.0	4.0	3.0	2.0	1.0	15.0
		B.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	C	D.41p	0	4.3	3.5	2.7	1.9	1.0	13.4
		D.7/D.9r	13.4	0	0	0	0	0	13.4
		B.9	13.4	-4.3	-3.5	-2.7	-1.9	-1.0	0

Annex III. Defining and Measuring Concessionality

1.   While the general definition of concessional lending in macroeconomic statistics manuals is relatively straightforward, there is nonetheless a lack of precision on the meaning of "*an interest rate below market interest rates*". In this respect, there is often a discussion on what would be the appropriate discount rate to measure the transfer component of a concessional loan. The existence and degree of concessionality could be assessed and measured by the difference between the terms of the loan provided to the debtor and either (i) the actual funding terms of the debtor, or alternatively (ii) of that of the creditor, or (iii) against a typical market rate. Aside the conceptual question of what constitutes a gift, the issue is important to ensure consistency of treatment and avoid cross-border asymmetries.

2.   In the specific context of debt reorganization through the Paris Club, *BPM6* recalls that the degree of concessionality is calculated in comparison to a common discount rate, usually the OECD's CIRR.[20] However, it could also be defended that the degree of concessionality in the event of debt restructuring should be calculated using the original interest rate of the loan as reference although some consider that this could understate the degree of concessionality in the restructured loan.

3.   In addition, concern is commonly expressed to avoid the need for extensive retreatments, for instance in case of mild concessionality.

4.   According to a Discussion Note of the eighteenth meeting of the IMF Committee on Balance of Payment Statistics,[21] OECD defines loans concessionality when the difference between the face value of the loan and the present value of the debt service (using CIRR) (i.e., the grant element) is of at least 25 percent. On its side, IPSAS uses a 10 percent threshold to decide if an asset is derecognized or not upon restructuring (irrespective of being or not concessional).

5.   The CIRR stipulates the minimum interest rates applicable to official financing support for export credits (arrangement for Officially Supported Export Credits). These rates are typically low, reflecting excellent credit risk conditions. A (minimum) margin is also to be applied in addition to the CIRR to reflect credit risks.

6.   **Issues to address and possible options:**

   a.   **In the context of new loans**, which discount rate should be used to define and measure concessionality?

      (i) Option A: the "typical" financing cost of the debtor.

      (ii) Option B: a market-rate.

      (iii) Option C: the observed financing cost of the creditor.

      (iv) Option D: the commonly agreed CIRR.

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[20] https://www.oecd.org/trade/topics/export-credits/arrangement-and-sector-understandings/financing-terms-and-conditions/

[21] https://www.imf.org/external/pubs/ft/bop/2005/05-10.pdf

b. **In the context of debt reorganization**, which discount rate should be used to define and measure the degree of concessionality:

(i) Option A: apply the same rule as for new loans.

(ii) Option B: use the CIRR as in the *BPM6*.

(iii) Option C: use the original interest rate/present value of the loan.

c. **Should a materiality threshold be used?**

(i) Option A: using a threshold of 25 percent between the face value of the loan and its present value as proposed by OECD.

(ii) Option B: using a lower threshold of 5 or 10 percent.

(iii) Option C: using no threshold, with flexibility of implementation.

7.	The discount rate to consider for assessing the existence of a transfer element, and measuring it, might be more or less clear-cut depending on the specific circumstance. The transfer element may be explicit in the case of commercial discounts or in the case of loans substituting for contributions by donors to beneficiaries (for example for MDBs) (the debtor funding cost for the latter). In other cases, the reference rate is uncertain and may be the (typical) funding costs of the debtor or of the creditor, some sort of market rate or other common rate.

8.	In the context of new loans, using the debtor typical financing rate (Option A) may be considered appropriate to the extent that it measures the implicit benefit received from its point of view. However, this would impart varying transfer elements according to the credit risk of debtors, which may then be burdensome to implement and would considerably inflate the scope of concessional loans. Furthermore, a considerable conceptual difficulty arises with using the debtor financing costs, because of an element of circularity: in a number of cases, the debtor financing costs is itself influenced by the existence, or the possibility, of the concessional lending (e.g., case of borrowers *de facto* shut off from credit markets).

9.	A commendable alternative (Option B) consists in using a market rate that will generally capture the average credit rating and thus the average borrowing costs of borrowers, without being subject to the specific credit conditions faced by each individual borrower, the latter being both resource consuming and conceptually debatable. Option B may nevertheless create difficulties due to the possible large number of market rates of reference that could be considered and has the default of measuring the benefit of the debtor as compared to the financing conditions it would face in the market, rather than the benefit effectively conveyed by the creditor. On the other side, defining in macroeconomic statistics manuals the exact rate of reference, frequently published, to be used in such circumstances, could help circumventing this problem.

10.	Measuring the degree of concessionality by reference to the own financing terms of the creditor (Option C) might thus be a good option in principle but also in practice, because it is easily assessable (especially if the creditor is government) and it *de facto* measures precisely the benefit conveyed from the point of view of the creditor. Whereas some argue that access to the creditor rates should in principle not be that different from access to market rates faced by debtors, this might not necessarily be true in the case of (notably developing economies) debtors who have no, or extremely limited, access to financial markets. The fact that the creditor extends loans at an interest rate below its own current financing terms

provides an undisputable indication of the presence of a benefit being conveyed by the creditor. Certainly, even funding at own financing costs (or slightly above), rather than with a margin, clearly also entails the provision of some benefit, but for an amount that is more debatable and difficult to measure. Neglecting such borderline cases will also have the merit to reduce the scope of concessional lending to undisputed cases of concessionality.

11.   In practice, precisely measuring the own financing cost of the creditor may be carried out by way of different methods. The perhaps theoretically preferable one uses the marginal funding costs method (rather than an average funding cost) applicable for the same maturity and at the same time. However, using the average funding cost of the creditor is also a plausible approach. It has the merit to reduce, probably often, the scope of concessionality.

12.   Use of funding cost may create difficulties in the case of MDBs as creditors, because while MDBs *de facto* provide concessional loans to beneficiaries, they finance themselves mostly through grants or concessional loans provided by their contributors to start with. To the extent that the concessional loans on their liability side would be recorded at a discount, the issue is whether the MDB funding costs should take into consideration, or not, the grants received (both regular grants as well as grants component on concessional loans).

13.   Option D using CIRR seems more aligned with current orientations of macroeconomic statistics manuals. It has the considerable merit of being easily observable by all national statistical institutes (NSIs) and are generally fairly low rates reflecting very low credit risks.

14.   This GN proposes that macroeconomic statistics manuals refer to both Options C and D as viable in the case of new concessional lending, because these options are both conceptually sound and because (given that they imply generally low discount rate) they limit the scope of concessional loans to undisputable case of subsidized funding. In case of loans provided by international agencies, the level of concessionality of the loans they provide should perhaps more appropriately be measured against their financing cost (Option C), as these agencies (such as the World Bank, IMF, etc.) already typically fund themselves at very low rates. Nonetheless, for contributions to MDBs or similar situations, Option A is presumably more relevant, as each MDB calculates the grant element using its own funding cost.

15.   For debt restructuring, *2008 SNA* refers to the CIRR, which has merit in itself (though it may understate the transfer element if the risk profile of debtors is less favorable than average).

16.   In contrast, "IPSAS 41, Financial Instruments"[22] paragraph 71 recommends using, in a renegotiation, the original (market) rate of the contract for measuring the concessionality implied by the renegotiation, when the loan is not derecognized (i.e., when the restructuring implies a change in present value of less than 10 percent). When the loan is derecognized, the market rate observed at time of restructuring is applicable.

17.   One clear difference between new concessional lending and debt restructuring is that the grant component is not difficult to establish in case of restructuring, as a well-defined discount rate that can be used already exists—the original rate of the contract. Using a market rate instead can lead to the anomaly that a capital transfer may be needed from the debtor to the creditor, which is difficult to defend. Using a

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[22] See https://www.ifac.org/system/files/publications/files/IPSASB-HandBook-2021-Volume-3.pdf for further details.

market rate *de facto* transforms what may be pure holding gains into transactions (income or capital transfers), which is generally not to be recommended. In addition, using a logic of opportunity cost may seem debatable for a non-tradable contract. Finally, the use of the original rate of the contract to measure the impairment is prescribed by IPSAS.

18.   This GN proposes to follow Option C for Issue b as a condition to assess whether a benefit is being conveyed in a debt restructuring and for measuring the benefit in the case of a restructuring.

19.   This Guidance Note rejects Option A for Issue c. Aside from being sometimes somewhat arbitrary, thresholds often create incentives, notably in government finance statistics, for agents to indulge in practices targeting at circumventing and avoiding such thresholds, thus avoiding the accounting impacts but with similar economic effects. The 25 percent threshold appears also too large, and presumably less necessary if the borrowing rate of the creditor is used. In that case (Issue a, Option C), the simple fact that government would be lending materially below cost should establish concessionality without need of a threshold (Issue c, Option C). However, if compilers use a market rate (Issue a, Option B), then perhaps using a 5 or 10 percent threshold could be useful (Issue c, Option B).

Annex IV. International Public Sector Accounting Standards References

1.   For the International Public Sector Accounting Standards (IPSAS), concessionary loans are loans granted/received at below market terms, with an intention at the outset to provide/receive resources at below market terms, which is distinct from "waiver of debt".

2.   The current treatment of concessionary lending in macroeconomic statistics manuals contrasts with IPSAS (IPSAS 41.AG118–AG125 and IPSAS 23.105A–105B[23]). IPSAS prescribes recording in the statement of balance position (balance sheet) of both the debtor and the creditor the fair (i.e., discounted) value, and recognizing (i) at inception, a revenue or liability (see below) for the debtor and an expense for the creditor and (ii) subsequently, interest expense for the debtor and interest revenue for the creditor higher than the facial interest of the contract. Thus, IPSAS is consistent with Issue 1 Option C.

3.   IPSAS is consistent between the debtor and the creditor when there is no conditionality attached. When conditionality exists, IPSAS then prescribes spreading the revenue for the debtor (IPSAS 23.105B and IPSAS 23.IG54) although keeping the one-off expense for the creditor.

4.   IPSAS 23.10 describes transactions in which an entity receives resources and provides consideration in exchange that "*does not approximate the fair value of the resources received*". Interestingly, IPSAS 23.10 refers to cases of below market interest rate loans in order to illustrate the generality of cases of non-exchange transactions, and IPSAS 23.11 makes a cross reference to "*trade discounts (…) or other reductions in the quoted price of assets*".

5.   According to IPSAS, in such cases, "*there is a combination of exchange and non-exchange transactions, each component of which is recognized separately*". As an illustration of such partitioning, IPSAS 23.105A–105B prescribe that, in the case of concessionary loans, the non-exchange part of the transaction (i.e., "*the difference between the transaction price (loan proceeds) and the fair value of the loan on initial recognition*") is to be recorded as revenue by the receiver of the loan, except if a present obligation exists (e.g., where specific conditions imposed on the transferred assets by the recipient result in a present obligation). Where a present obligation exists, it is recognized a liability for the debtor (and still an expense for the creditor). As the entity satisfies the present obligation, the liability is reduced, and an equal amount of revenue is recognized.

6.   IPSAS 23.IG54 provides a recording example on concessionary loans (paragraphs 105A and 105B of IPSAS 23). When a currency unit (CU) 5 million 5-year 5 percent rate loan is incurred (apart from an additional CU 1 million of straightforward grant revenue in this IG 54 example), a non-exchange revenue is recognized by the borrower at inception for the difference between the contract interest rate of 5 percent and the comparable market interest rate of 10 percent—an amount of CU 784,550. Consequently, a loan of CU 4,215,450 is recorded in the balance sheet at inception, instead of CU 5 million.

7.   IPSAS 41.AG118 provides further clarification on the broad scope of concessionary lending, recalling that concessionary loans are not restricted to government-to-government or government-to-development agencies transactions, mentioning other cases, such as student loans.

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[23] See https://www.ifac.org/system/files/publications/files/IPSASB-HandBook-2021-Volume-1_0.pdf for further details.

8.   IPSAS 41.AG119–126 provide further details on concessional loans recording. IPSAS 41.AG119–123 call for distinguishing concessional loans (ex-ante) from waiver of debt (ex-post). IPSAS 41.AG120 clarifies that the initial intention of a concessionary loan is to "*provide (…) resources at below market terms*", thus distinguishing it from a loan provided at market terms and, later on, partially or fully written-off. IPSAS 41.AG124–125 reinforce the interpretations of IPSAS 23 in the recognition of a gift element in both debtor and creditor accounts. In this instance, IPSAS 41.AG125(b) clarifies that "*Any difference between the fair value of the loan and the transaction price (…) is treated as an expense in surplus or deficit at initial recognition*".

Annex V. Commercial Loans at Low-Interest Rate

1.   Producers (such as car manufacturers) sometimes provide low-interest loans (including zero-interest car loans), as part of commercial incentives they deploy. These loans may occasionally be extended directly by manufacturers, but more often they are granted through their own in-house banks. When extended directly, a question arises whether the 'loans' should be viewed as a trade credit (AF.81) or as a genuine loan (AF.4).

2.   In all these cases, appropriately measuring the producer's output requires in concept valuing the lending instrument at its present value (i.e., at a discount). Using the face-value of the loan/trade credit at inception is not admissible because it would distort the time of recording of output (and operating surplus) as well as its statistical classification of economic activities in the European Community (NACE) composition (too much manufacturing and not enough, or even negative, financial intermediation services indirectly measured (FISIM), when the producer uses the service of an in-house bank). See the numerical example below.

3.   For this reason, *2008 SNA* paragraph 3.144 already explicitly prescribes that long-term trade credit be recorded at a discount. The same valuation would obviously be required if the producer would hold a loan (instead of a trade credit) against its clients, for instance if it arranged the sale of its products by way of financial leases.

4.   When the loan is extended by the bank of the group, it would not be admissible to record a loan for its face value either, as the loan would then generate no income for its remaining duration and therefore would generate a loss all along (given the carrying costs the bank has to bear). The bank itself is unlikely to have passed cash equal to the face value of the loan to the car manufacturer and to have borrowed this amount on the market. Instead, the bank borrowed up to the fair value of the loan and passed the proceeds to the manufacturer. Likewise, it is unlikely that the regulators would accept that the bank asset would be recognized at the face value, as this would greatly distort the solvability ratio of the bank. For the same reasons, the accounts of the car manufacturer /group would not be recording a long-term claim on the customer for the face value.

5.   The macroeconomic statistics currently compiled already *de facto* record concessional lending in the context of commercial loans at their discount/present value, given that this is the treatment undertaken in data sources under International Financial Reporting Standards (IFRS)/IPSAS (see Annex IV). In these cases, either the manufacturer or its bank (depending on the financial arrangement) records an asset equal to the present value of the lending contract.

Numerical Example

6.   Assume that a car is sold at 10.000 U, through a 5-year *in fine* loan, with a present value of 7.500 U, that production costs are 7.000 U, and that the manufacturer/group borrows at 5 percent. Compounding of interest is neglected in this example.

7.   It would be unsound to record a sale (P.11) of 10.000 U at time of sale, and a profit of B.2n [24] = B.101 [25] = 3.000 U. To understand this, assume that the bank is part of the group. In each subsequent year, we would have B.2n = 0 and B.101 = -500 U, if we disregard FISIM, reflecting the funding costs and zero property income revenue. If we apply FISIM, we would have, in each subsequent year B.2n = B10.1 = -500 U (assuming interbank rate of 5 percent), thus B.2n = -2500 U over five years, with overall B.2n = 3000 - 2500 = +500 U.

8.   Thus, when the bank is a monetary financial institution (MFI), a negative FISIM is to be recorded, and if one follows a face valuation of the loan, then an anomaly distorts GDP timing and composition.

9.   The correct recording is to consider that the P.11 is the present value of the cash to be collected from the client, that is 7.500 U (approximately), which yields B.2.n = 500 U at time of sale/production. In subsequent years B.1 = B.2n = 0 and B.101 = 0, because the bank earns interest of 500 U, which generates no FISIM if we presume (to simplify here) that the interbank rate is 5 percent.

Table 5. Recording of Commercial Loans at Low-Interest Rate

	Distorted recording				Correct recording			
	Production	Subsequent yearly recording	Final repayment	Overall	Production	Subsequent yearly recording	Final repayment	Overall
P.11	10,000	-500	0	7,500	7,500	0	0	7,500
D.1	7,000	0	0	7,000	7,000	0	0	7,000
D.41rec	0	500	0	2,500	0	500	0	2,500
D.41pay	0	500	0	2,500	0	500	0	2,500
B.2	3,000	-500	0	500	500	0	0	500
B.9	3,000	-500	0	500	500	0	0	500
B.9f	3,000	-500	0	500	500	0	0	500
F.2	500	0	0	500	500	0	0	500
F.4	10,000	0	-10,000	0	7,500	500	-10,000	0
F.3L	7,500	500	-10,000	0	7,500	500	-10,000	0

Assume, for exposition reasons: i) the bank finances itself with a zero coupon bond, ii) the car loan is paid *in fine*

10.   A narrow reading of SNA on nominal value of loans would distort:

• The B.1, B.2n, B.10.1, and B.9 of the carmaker/group, frontloading future profits.

• The NACE classification of value added, with too much car-making activities and too little/negative FISIM.

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[24] Net operating surplus.

[25] Changes in net worth due to saving and capital transfers.

11.   Because value added is distorted over time if the narrow SNA interpretation—that all loans should always be recorded at inception at their face value—is followed for commercial loans, while the volume of activity has no reason to be wrong, the difference enters the GDP deflator. Hence, the GDP deflator (erroneously) increases when low interest rate loans are granted. There is an intuitive way to understand that low interest rate loans are a way to provide a discount on cars that, in principle, should reduce the household consumption and GDP deflators. By not recognizing this, the two deflators are inflated.

Annex VI. Recording of Transactions

1.   Another issue concerns what the most appropriate transaction is for recording the transfer/grant element contained within a concessional loan, in case the international statistics community favors either Option B or C.

2.   Two options, or a combination of these, could be envisaged:[26]

- Option A: Current transfers.

- Option B: Capital transfers.

3.   The reality of concessional lending is varied, as seen above, ranging from operations undertaken in an international context as well as within a country, in the context of specific policies.

4.   The gift element of a concessional loan from a government to an international organization could be appropriately recorded as another capital transfer, paralleling the typical recording of outright transfers from governments to MDBs (*2008 SNA,* paragraph 8.38). Moreover, capital transfers in cash can also be seen in such context as requiring the second party (the MDB) to use these funds for the acquisition of assets (loans to beneficiaries) (*ESA 2010,* paragraph 4.146). Also, by definition, capital transfers are meant to distribute wealth, and it is reasonable to see the grant element of a concessional loan as the distribution of wealth from developed to developing countries, intermediated by an MDB.

5.   Depending on the circumstances, the same reading could be made for other transfers in the international, and national, context. Notably, the recording of a capital transfer seems appropriate in the context of (inter)governmental debt restructurings *(2008 SNA,* paragraph 22.99 (e))

6.   However, the grant element of concessional loans in the international context is also seen by some as a current transfer, notably current international cooperation (*2008 SNA,* paragraph 22.99 (c); *BPM6,* paragraph 12.51), given their recurrent nature and frequent purposes (such as to aid in the event of natural disasters).

7.   Capital transfers are usually large and infrequent, whereas current transfers are normally smaller and regular (*2008 SNA,* paragraph 8.38). Such an interpretation favors the recording of current transfers in case Option B is preferred in Issue 1 and favors capital transfers in case Option C is preferred in Issue 1. Still, however, being large and irregular is more a typical observation than a condition for a transfer to be considered as capital transfer (*2008 SNA,* paragraph 10.200).

8.   Some of the arguments above could be considered together to decide if the recording of the grant element on concessional lending in the context of national policies is more appropriately reflected by capital or current transfers. The choice between one of the two transactions might *a priori* seem more dependent on the decision on whether to record the grant element at inception or spread over the lifetime of the loan (rather than deciding first what is the correct transaction, and then apply the recommended

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[26] Another recording (subsidies on production) could be seen as more appropriate in the case of concessional lending provided by government to market producers. Also, reduction to sales is already *de facto* foreseen by *2008 SNA* in the case of concessional lending provided in a commercial context (see Annex V), and compensation of employee is explicitly foreseen for low interest rate loans granted by employers to employees.

time of recording). However, in cases where the concessional loan is aimed at supporting the acquisition of assets by the recipient, the transaction should straightforwardly be recorded as a capital transfer.

9.   On the other side, the recording of the grant element of concessional lending from government to non-financial corporations as subsidies on production could also be warranted, for example if aimed at covering production costs such as to reduce pollution, inter alia.

10.   Finally, the context of commercial transactions seems to straightforwardly point at recording the one-off element as reduction to sales (P.11).

11.   The choice of the most suitable non-financial transaction to account for the transfer/grant element of a concessional loan is not always straightforward. An analysis of the exact nature of the operation underlying the loan, on a case-by-case basis, seems necessary to choose the most appropriate non-financial transaction to record the corresponding transfer/grant element.

12.   Recognizing its complexity, this GN thus proposes to tackle this issue at a later stage, after sufficient advance has been made on Issues 1 and 2.

Annex VII. Statistical Treatment of Concessional Lending in the Context of Debt Reorganization

1.   **An issue is whether the rule that would be applied to new concessional loans should also be extended to loans refinancing, restructuring, or rescheduling,** by which creditors offer a reduction in interest rate (instead of a reduction in principal) or an extended grace period to existing loans, which thus become concessional. *BPM6* paragraphs A2.67 to A2.70 do not differentiate between loans provided with concessional terms at inception and concessional terms arising from debt restructuring.

2.   **The options that can be envisaged are:**

- Option A: To follow the same treatment as decided for the granting of new concessional lending.

- Option B: To follow a different treatment, for instance opting for spreading the transfer.

3.   **Concessional loans arise spontaneously in debt reorganization.** The issue is whether the new recording rules deemed applicable to concessional lending (i.e., if Option C or B prevails in Issue 1) should be the same at inception and at time of restructuring (if or because the restructuring is seen as the delayed manifestation of an initial intention to convey a benefit to the debtor), or whether there may be good reasons to allow a deviation in recording (if or because the restructuring is seen as imposed on the creditor, analogously to bankruptcy).

4.   **It could be argued that the concessional element implied by loans refinancing, restructuring, or rescheduling is sufficiently different from concessional loans at inception to justify a different treatment.** One relatively clear difference is that, in the former case, the creditor undisputedly intends to convey a benefit to the debtor, while in the latter case, it is more debatable, as the creditor may also be seen as simply attempting to optimize the return on its assets gone sour (i.e., on what became *de facto* a Non-Performing Loan).

5.   **On the other hand, one would wonder why a general rule defined for new concessional lending would not be also applied for restructurings.** Distinguishing reductions in rates from reductions in principal can be seen as putting undue emphasis on form over substance (distinction inherited from the old notion of *usufructus*). A reduction in promised cash flows is in substance always a transfer/grant by the grantor at time of reduction, regardless on when (at inception or rescheduling) or how (interest or principal) this reduction occurs.

6.   **To treat concessional lending differently in the context of debt restructuring could also present unwarranted incentives for governments to indulge in fiscal illusion practices.** As an example, in the context of capital injections, governments could easily provide an entity a market-rate based loan at inception, only to later on restructure it to terms more favorable to the debtor, thus evading a deficit impact.

7.   A possible way to limit those problems above (avoiding applying the new rule to cases of official restructuring, while at the same time preventing operations carried out by government with public corporations) would be to restrict to government-to-government loans any eventual exemption to the general rules on concessional loans in case of restructurings.

8.   **This GN recommends Option A but suggests that an alternative option is offered for the vote, through Sub-options B.b and C.c in Issue 1.**

Annex VIII. Impact of the Sale of Zero Interest Rate Loans

1.   **This annex is designed to illustrate the accounting impact, on the accounts of the grantor (in this case, government), due to the resale of zero interest loans.**

2.   The GN paragraph 36 argues that Option A and B distort the net lending net borrowing in case of secondary sale of these instruments, while Option C does not. As explained by the GN, the *ESA 2010* (that follows Option A, together with *2008 SNA* and *BPM6*) tries to correct this by recommending recording a capital transfer at time of sale.

Numerical Example

3.   **To start with, we examine the case where the sale price** (which is lower than the face value) **only reflects the discount at inception** (accrued to date of sale)—that is, it does not reflect changes in market rates. To simplify the presentation, we assume a 5-year bullet loan of 100 with a discount rate of 5 percent, which is also the funding rate of the creditor. The creditor funds its loans through the issuance of a 5-year zero coupon bond issued at 100 with a face value of 127.63.

4.   We examine the situation depending on whether the creditor holds its asset to maturity (left hand side of the tables below) or sells the claim immediately after issuance (right hand side).

Analysis of the Three Options with a "Lend and Hold" Scenario

5.   When looking only at the left-hand sides in the Tables 6 to 8 below, and as explained in the GN, **one can observe that Options A, B, C yield the same cumulated B.9 over time** (-27.63, which represents the total interest costs of the creditor's own financing), in the "lend and hold" scenario (i.e., if the creditor's claim is held until maturity).

6.   However, while the time profile of the B.9 is the same for Option A and B, it radically differs in Option C (front loading). By the same token, the net assets of the creditor end up with the same -27.63 result, but Option A and B starts with 0 net assets, while option C starts with -21.65 (representing the difference between the face value of the zero-interest claim and its nominal value/net present value at inception). Notice that the net lending/net borrowing is not zero under Option C during the life of the loan, precisely because of the carrying costs of the negative net assets position created at inception.

7.   GN F.15 on debt concessionality could thus be seen by some as merely a problem of time of recording of the deficit. However, as will be shown in the next section, this is not anymore, the case when we consider cases of resale of such loans.

Analysis of the Difference Between a "Lend and Hold" and "Lend and Sell" Scenario

8.   To simplify the analysis, one presumes that the loan is sold off immediately after issuance. The concessional loan is sold for its market value (equal to its nominal value/net present value at inception) of 78.35, which are fully used by the creditor to redeem its own financing. Yet, at issuance, the creditor's own financing has a market value (equal to its nominal value/net present value at inception) of 100. Thus, the creditor starts after the sale, and will still keep over the year, a loan net liability amounting to 21.65 (that will accrue further interest).

9.   As can be seen in Table 6, when using Option A of recording, one observes that the cumulated B.9 is completely different in the "lend and sell" scenario compared to the "lend and hold" scenario, with a cumulated deficit impact -5.98 instead of -27.63. The -5.98 corresponds to the sole carrying cost of the initial gift of 21.65 (26.63 = 21.65 + 5.98). That is, with Option A, in case the claim is resold immediately after issuance, the whole gift element of 21.65 evades the deficit.

10.   Obviously, if the sale would have been carried out in the middle of the loan maturity, only a part (around half) of the gift (thus half of 21.65) would evade the deficit.

11.   This result is not so surprising given that upon the sale, the difference in value is generally recorded as a holding loss (except in *ESA 2010* for this specific case, see below). Given that there are no further holding gains to compensate, the change in net worth over 5 years of 27.63 is decomposed in a holding loss component of 21.65 and a net negative saving and net capital transfer component of 5.98.

Table 6. Difference Between a "Lend and Hold" and "Lend and Sell" Scenario (Option A of Recording)

Option A and hold								Option A and sell						
Asset	Liability		D.41R	D.41P	D.9/D.7P	B.9		Asset	Liability		D.41R	D.41P	D.9/D.7P	B.9
100	**100.00**							**100**	**100.00**					
100	105.00	Year 1	0	5.00	0	-5.00		0	22.73	Year 1	0	1.08	0	-1.08
100	110.25	Year 2	0	5.25	0	-5.25		0	23.87	Year 2	0	1.14	0	-1.14
100	115.76	Year 3	0	5.51	0	-5.51		0	25.06	Year 3	0	1.19	0	-1.19
100	121.55	Year 4	0	5.79	0	-5.79		0	26.31	Year 4	0	1.25	0	-1.25
0	27.63	Year 5	0	6.08	0	-6.08		0	27.63	Year 5	0	1.32	0	-1.32
		Sum	0	27.63	0	-27.63				Sum	0	5.98	0	-5.98

12.   When looking at Table 7 below, we observe in contrast that under Option C of recording, the "lend and hold" and "lend and sell" scenarios lead to **identical cumulated B.9—**but also identical B.9 for each year. The difference in recording is only that the D.41R is *de facto* netted from the D.41P in the "lend and sell" scenario—there is no claim anymore and only a carrying cost of the gift to bear. Thus, Option C always reflects in the deficit the effective change/decrease in net worth, regardless on whether the claim is sold before maturity or not.

Table 7. Difference Between a "Lend and Hold" and "Lend and Sell" Scenario (Option C of Recording)

Option C and hold									Option C and sell							
Asset (nominal)	Asset (face)	Liability		D.41R	D.41P	D.9P	B.9		Asset (nominal)	Asset (face)	Liability		D.41R	D.41P	D.9P	B.9
78.35	**100**	**100.00**							**78.35**	**100**	**100.00**					
82.27	100	105.00	Year 1	3.92	5.00	21.65	-22.73		0.00	0	22.73	Year 1	0.00	1.08	21.65	-22.73
86.38	100	110.25	Year 2	4.11	5.25	0	-1.14		0.00	0	23.87	Year 2	0.00	1.14	0	-1.14
90.70	100	115.76	Year 3	4.32	5.51	0	-1.19		0.00	0	25.06	Year 3	0.00	1.19	0	-1.19
95.24	100	121.55	Year 4	4.54	5.79	0	-1.25		0.00	0	26.31	Year 4	0.00	1.25	0	-1.25
0.00	0	27.63	Year 5	4.76	6.08	0	-1.32		0.00	0	27.63	Year 5	0.00	1.32	0	-1.32
			Sum	21.65	27.63	21.65	-27.63					Sum	0.00	5.98	21.65	-27.63

13.   Without surprise, Option B observed in Table 8 below yields the same result as Option A. This is because the "subsidy" and the matching "increased interest revenue" approach followed by Option B is in fact a mere imputation, or to be more correct two matching imputations that cannot be separated. Upon the sale of the instrument, the "subsidy" expenditure cannot be recorded anymore because what would be

its counterpart? And even if it could be recorded (by creating artificial transactions neutralized by other flows), the cumulated subsidy would then be too large.

Table 8. Difference Between a "Lend and Hold" and "Lend and Sell" Scenario (Option B of Recording)

Option B and hold			D.41R	D.41P	D.9/D.7P	B.9
Asset	**Liability**					
100	**100.00**					
100	105.00	Year 1	5	5.00	5	-5.00
100	110.25	Year 2	5	5.25	5	-5.25
100	115.76	Year 3	5	5.51	5	-5.51
100	121.55	Year 4	5	5.79	5	-5.79
0	27.63	Year 5	5	6.08	5	-6.08
		Sum	25	27.63	25	-27.63

Option B and sell			D.41R	D.41P	D.9/D.7P	B.9
Asset	**Liability**					
100	**100.00**					
0	22.73	Year 1	0	1.08	0	-1.08
0	23.87	Year 2	0	1.14	0	-1.14
0	25.06	Year 3	0	1.19	0	-1.19
0	26.31	Year 4	0	1.25	0	-1.25
0	27.63	Year 5	0	1.32	0	-1.32
		Sum	0	5.98	0	-5.98

Analysis of the Case Where the Resale Price Reflects Further Value Changes

14.   The resale price on a zero-interest loan generally reflects the initial discount amortized to date using the discount rate at inception (first component) as well as any difference in discount rate (second component).

15.   Under Option C, the first component is already accrued in the net lending/net borrowing, and it is generally appropriate to record the second component in revaluation—although this second component could be decomposed between a genuine change in market rates (second component part 1) and a rest originating from the fact that the discount rate at inception (e.g., reflecting the funding cost of the creditor) was not a true market rate (second component part 2).

16.   Under Option A and B, because the initial discount is not recorded in the deficit, it may perhaps be appropriate to record a capital transfer at time of sale, like *ESA 2010* prescribes to do (in some circumstances and excluding the second component part 1).