IMF Committee on Balance of Payments Statistics

BPM6 Update
Direct Investment Task Team (DITT)

FOR GLOBAL CONSULTATION

D.16 Treatment of Retained Earnings

D.16 Treatment of Retained Earnings[1]

This Guidance Note (GN) reflects on the treatment of retained earnings in external sector statistics. In particular, it presents the different methodological and practical challenges currently faced by compilers and analysts when dealing with reinvestment of earnings (RIE) in direct investment enterprises (DIEs). These challenges stem from the divergence between accounting and statistical definitions of income (net operating surplus) as well as the need to impute RIE generated along the direct investment (DI) ownership chain. Finally, and not only in the context of DI, the GN also addresses the implementation of the investment income attributable to investment fund shareholders following current guidelines in Balance of Payments and International Investment Position Manual, sixth edition *(*BPM6*) and concludes that if RIE should be applied to investment funds (institutional unit), it should be treated equally for all investment funds regardless of the fund characteristics.*

SECTION I: THE ISSUES

BACKGROUND

Issue 1: Calculation of Reinvestment of Earnings (RIE)

1. **Direct Investment (DI) income on equity includes all the distributed and undistributed current operating earnings of a DI company.** Distributed earnings consist of dividends or withdrawals from income of quasi corporations, while undistributed earnings are imputed as reinvested earnings. Retained earnings of direct investment enterprises (DIE) are also attributed as transactions of the direct investors as if the retained earnings had been distributed in proportion to direct investors' shares in the earnings of the DIE and then reinvested by them in the DIE (*BPM6*, paragraph 3.18).[2]

2. ***BPM6*, paragraph 11.34 indicates that the retained earnings of an enterprise show:**

- the net earnings from production and primary and secondary income transactions before attributing reinvested earnings, or
- Net Operating Surplus (NOS)[3] plus primary income, current transfers receivable, and change in pension entitlements, and minus primary income (excluding RIEs payable to the enterprise's direct investors and owners of investment funds) and current transfers payable.

3. **To be consistent with international standards (*BPM6*, paragraph 11.44), NOS should exclude items that are not always standardized in the enterprises' accounting frameworks:** realized and unrealized holding gains and losses derived from valuation changes, including revaluation of

[1] Prepared by Carmen Picón Aguilar and Antonio Rodríguez Caloca (European Central Bank, ECB), Emma Angulo (International Monetary Fund, IMF), Fernando Lemos (Banco Central do Brasil), Irene Madsen, and Matthias Ludwig (Eurostat).

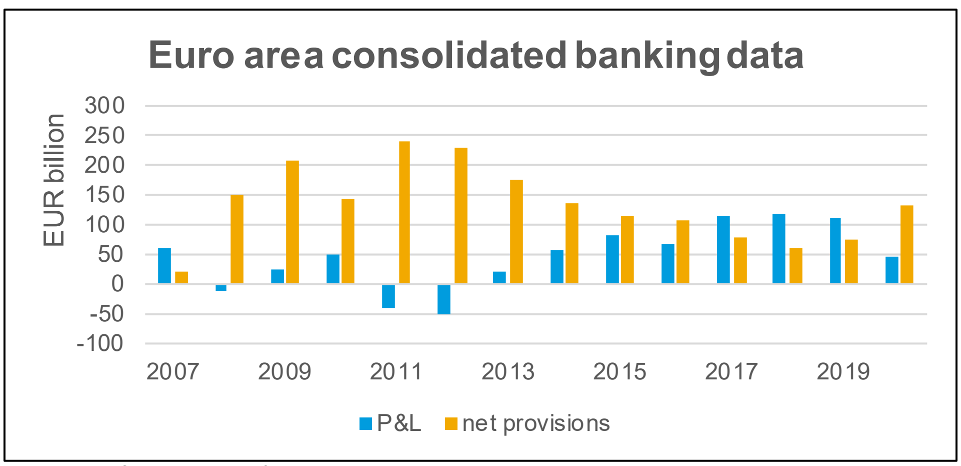
[2] In June 2021, the BOPCOM discussed and agreed (GN F.2 Asymmetric Treatment of Retained Earnings) to retain the current treatment of DI RIE.

[3] Operating surplus is a measure of the surplus accruing from processes of production before deducting any explicit or implicit interest charges, rent or other property incomes payable on the financial assets, land or other natural resources required to carry on the production (paragraph 7.12, *2008 SNA*).

fixed assets, changes in market prices of financial assets and liabilities, or exchange rate changes. It should also exclude gains or losses due to other changes in volume of assets, such as, write-offs, write-downs, and provisions, and should assure that research and development (R&D) and own-account production of software are treated as assets and not as expenses. It is not easy to find this complete and detailed information in the enterprise's financial statements and reports. Additionally, non-standardized forms of financial statements impose barriers to automation (each enterprise has its own format). Most of the companies follow national Generally Accepted Accounting Principles (GAAP), while a small number of companies follow more comparable International Financial Reporting Standards (IFRS). Furthermore, those details may be costly: while they can be accessible for resident DIEs via DI surveys, the complexity of obtaining that detailed information from foreign companies, even when they are controlled by the resident direct investor, can distort the calculation. Finally, commercial databases containing financial statements of listed and unlisted enterprises do not usually provide these details. All these details and constraints are very relevant to operationalize the calculation of RIE in a consistent manner, in particular now that it has been agreed by the IMF's Committee on Balance of Payments Statistics (the Committee) (and subject to the SNA Advisory Expert Group (AEG) opinion) to add supplementary information on portfolio investment RIE to the balance of payments.[4]

4. **The difficulties to measure and to analyze the current statistical concept of NOS are particularly relevant for financial corporations.** The activities and profits of these corporations are based on financial trading and, therefore, holding gains beyond normal trading margins could be included in their financial accounting data. In addition, their profits are limited by loan provisions that they have to separate by law. As a result, profits announced by the financial corporations may depart largely from the statistical recording (Figure 1 shows the relevance of provisions in the Euro Area).

Figure 1. Relevance of Provisions in Euro Area Credit Institutions



Note: Profit and loss (P&L) already discounts the net provisions. In order to calculate COPC, the net provisions should be added to the P&L values.

[4] See outcome of the Committee meeting of June 2021: https://www.imf.org/external/pubs/ft/bop/2021/pdf/VM2/21-12.pdf, see paragraph 48 and the section of action for GN F.2. The recording of RIE in portfolio investment and domestically will be considered as part of the testing of F.2 and, so, will not be discussed in this GN.

Issue 2: RIE Treatment/Classification in the DI Ownership Chain

5. **According to *BPM6* paragraph 11.47, "the passing of retained earnings from indirect holdings should be taken into account through the chain of direct investment relationships".**[5] Retained earnings of an enterprise in the chain would include reinvested earnings derived from its immediate direct investment enterprise […], which as a direct investor would receive reinvested earnings from its immediate direct investment enterprise, and so on. Therefore, reinvested earnings are passed on to the indirect direct investors through the chain indirectly...".[6]

6. **Recording RIE from indirectly held enterprises is applicable for economies on the top or in the middle of multinational investment chains.** If the resident entity is on the top of the investment chain, RIE from indirectly held enterprises should be included in the resident entity's DI income (receivables). If the resident entity is in the middle of the investment chain, the receivables should be allocated to the foreign direct investor in addition to the payables of RIE of the resident entity.

7. **Calculating indirect RIE is particularly challenging for those economies where Special Purpose Entities (SPEs) or other pass-through entities play a significant role.** However, it should not be misunderstood as "I pass all the income that I get" without considering that the resident company may also generate some income; therefore, those countries should not have debits equal to credits.

8. **On the asset side, long ownership chains have the potential to hinder the distinction between operational and non-operational earnings:** usually, DI income is requested from the immediate DIE. When the ownership chain is long and there are enterprises at different "layers" contributing to total income, it becomes harder to correctly measure the Current Operating Performance Concept (COPC) and non-COPC results for each enterprise. It is often easier to obtain the information needed to calculate RIE when the entity in the reporting economy is at the top of the investment chain; companies that are in the middle of the chain and that are foreign controlled often do not have this information or have difficulties in obtaining the required detailed information. The process is burdensome and time consuming for both compilers and reporters as it demands high expertise and the quality of the calculations depends highly on the information on the structure of the company, its complexity and the availability of details for every unit below the compiling economy in the chain.

Issue 3: Investment Income Attributable to Investment Fund Shareholders – Retained Earnings[7]

9. **Investment funds are collective investment schemes that raise funds by issuing shares or units to the public that become shareholders (*BPM6*, paragraph 4.74).** As legal and institutional units they legally and economically own the financial asset in which the funds raised are invested. Some funds may be limited to certain investors only, whereas others are available to the public. Investment funds as

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[5] The international chain may contain domestic enterprise groups in some host economies; however, SNA does not compile RIE for domestic groups. When imputed in the RIE of the DIE, it can generate inconsistencies in the DIE economy unless NA introduce some adjustment in the sectors involved. The SNA research agenda mentions it as an item for further elaboration (A4.29).

[6] See the *Benchmark Definition of FDI*, *fourth edition* (*BD4*) paragraphs 549 and 550 for a practical example of the calculation of RIEs along a chain of related DIEs.

[7] The authors take the opportunity of this GN to address this issue, despite the fact that it is mainly (if not fully) touches upon portfolio investment.

institutional units should not be confused with custodians or brokers that may provide financial asset management services to the investment funds or directly to the investment fund shareholders. These services, nonetheless, should be covered in the balance of payments when rendered between residents and non-residents.

10. ***BPM6* explicitly clarifies the recording of undistributed earnings generated by investment funds as income.** Under *BPM6*, paragraph 11.38, undistributed earnings of investment funds are imputed as being payable to the owners and then reinvested in the funds. This is applicable to both DI and portfolio investment.[8] The consequence of the treatment of the retained earnings of investment funds is that net savings of investment funds is always zero, as the net earnings of investment funds (net investment income) belong ultimately to their shareholders, and they are either distributed via dividends or reinvested in the fund.

11. **The treatment and calculation of investment funds' RIE are the same as for RIE of any other DIEs. Holding gains and losses are not considered in the income generated by the fund and are reflected under revaluation flows (*BPM6*, paragraph 11.39).** Reinvestment of earnings may be negative, for example, when a fund has paid dividends out of realized holding gains, or when earnings accrued over previous periods are paid as dividends.

12. ***BPM6*, paragraphs 10.124–10.125 and 11.38 lack specific guidance on deducting operating expenses when calculating the investment funds' RIE.** It seems unclear if management service charges or fees, whether charged explicitly or implicitly, should be considered as well as the payment of taxes.[9]

13. **In 2018, the European System of Central Banks (ESCB) initiated discussions to compile investment fund income attributable to shareholders in line with *BPM6* methodology on a security-by-security (SBS) basis.** An overview of the resulting compilation model is included in Annex II.

ISSUES FOR DISCUSSION

Issue 1: Calculation of RIE

14. ***BPM6* provides following guidance on the calculation of retained earnings and RIE:**

- **Reinvestment of earnings** (paragraph 8.15): "It is the corresponding entry and equal to reinvested earnings".
- **Retained earnings** (paragraph 11.34): "Retained earnings of an enterprise shows the net earnings from production and primary and secondary income transactions before attributing **reinvested earnings**".
- **Reinvested earnings** (paragraph 11.40): "The reinvested earnings are the direct investors' share of the **retained earnings** of the direct investment enterprise".

[8] In October 2020, BOPCOM discussed and agreed (GN D.3 Collective Investment Institutions (CIIs)) to modify the operational definition of DI to exclude certain investments in or by CIIs to overcome both conceptual and practical issues from existing guidelines. Further details can be found at: https://www.imf.org/en/Data/Statistics/BPM/DITT.

[9] Retained earnings of a DIE are measured after deducting corporate taxes charged on the income of the enterprise (*BPM6*, paragraph 11.45).

15. **The above guidance may be confusing to the compilers.** This note considers that the above explanation on the calculation of retained earnings should be modified as: "Retained earnings of an enterprise shows the net earnings from current production and primary and secondary income transaction that has not been distributed", removing the reference to reinvested earnings. Once the retained earnings are calculated, the reinvested earnings are the part of the retained earnings owned by the direct investor based on the percentage of ownership.

16. **Some aspects of RIE compilation require further clarification in the *BPM6* update or its compilation guide:** (i) change in pension entitlements are only mentioned in paragraph 11.34 and not included in in other parts of the *BPM6* that discussed RIE; and (ii) the values of "Enterprise's share of RIE of any DIEs" are not included in the profit and loss (P&L) statements of the enterprise.

17. **In particular, the concept of income generated by enterprises does not deduct the expenses related to the provisions for losses on long-term contracts as they are not considered as intermediate consumption of the sector.**[10] In the case of credit institutions, these expenses, which are necessary for the development of their ordinary activity and even mandatory from the regulatory authorities, are usually large and have a significant impact in its profitability.[11] The analytical use of the RIE and the stock/flow reconciliation for credit institutions is hampered by this treatment, as the overstatement of DI Income usually is corrected by negative price revaluations (i.e., they present significant and persistent differences with the financial accounting profitability of the sector).

18. **To reflect that obligatory provisions for bad loans cannot potentially be distributed to the direct investor, they could be deducted when calculating the RIE to be imputed to the direct investor, leaving them as savings of the DIE.** This would not change the treatment of provisions in macroeconomic statistics (i.e., the provisions would not be considered current expenses but would include the novelty that DIE may have savings different from zero).[12] However, this option would increase the Gross National Income (GNI) of the DIE's economy as part of the earnings of the DIE will stay as savings of that economy and would fail to recognize in the balance of payments and IIP the financing of provisions provided by the direct investor.

19. **A different option, that will not impact the measurement of GNI of the DIE's economy, would be to keep the current RIE imputation and present the provisions as a memorandum item.**[13] This would help the analyst to understand the statistical income figures, in particular in financial crisis times when the increase of provisions may drastically change the P&L of the banks (see Figure 1). From a practical point of view, the isolation of regulatory provisions should not generate any additional reporting

[10] The treatment of provisions in the SNA was included in the research agenda of *2008 SNA* with a clear reference to the current SNA overestimation of the net worth of banks (by not taking into account impaired loans).

[11] See the relevance of provisions vs P&L accounts for the euro area credit institutions in Figure 1.

[12] See *2008 SNA*, paragraph 7.139.

[13] *2008 SNA*, in paragraph A4.42, mentions that liabilities and provisions relating to financial instruments are generally recognized in the main accounts only if there is a corresponding financial asset of equal value held by a counterparty. However, it is recommended that certain provisions that do not satisfy this criterion, such as those for non-performing loans, should be recorded as memorandum items. Thus, this proposal appears to be in line with the current treatment of provisions in the manuals; if there are changes to the treatment of provisions in the updated manuals, these would then be reflected in the guidance on DI statistics.

burden as it will be more consistent with the financial accounting and therefore less adjustments should be done by compilers or reporters.

Issue 2: RIE Treatment/Classification Along the DI Ownership Chain

20. ***BPM6* guidance is confusing on the implication of including RIE derived from its immediate DIE (*BPM6*, paragraph 11.47), in particular because the values of the RIE receivables from the immediate DIE are not included in its P&L statement.** The members of this drafting team have different interpretations about its practical implementation, and, therefore, they agree that further clarification and examples should be included in the updated manual. This statement is supported by the work done by US BEA and Eurostat in 2019 to explain large asymmetries in DI income between the EU and the US.[14]

21. **Incorrectly recorded DI income can have significant impacts on the level and partner economy allocation of income statistics and can impact global and bilateral asymmetries between economies.** This becomes very relevant for the compilation of economic union aggregates. Annex IV shows examples of different practical implementations by compilers, including the options proposed in this GN, for an extended example included in *BPM6* Box 11.1.

22. **Due to the compilation challenge of implementing the imputation of the indirect DI income treatment, isolating this type of income from the immediate DI income could benefit the global analysis of DI income data.** In addition, from an analytical point of view, the drafting team considered it only relevant for the economy where the head of the company is resident; therefore, compilers in those economies will make an extra effort for good coverage that may not be possible for compilers in other economies. Specifically, three alternatives were considered: (A) the status quo (i.e., recognizing all of the earnings generated down the DI ownership chain in primary income (see example 1 in Annex III)); (B) recognizing all of the earnings generated down the DI ownership chain as primary income but reporting indirect income separately (see example 1a in Annex III); and (C) limiting the imputation of RIE to the P&L account of the immediate DIE (see example 2 in Annex III). Alternative A is the most conceptually and analytically sound although difficult to follow for compilers of economies in the middle of the chain. Alternative B would be complicated for countries that collect consolidated data and cannot separate the income of the immediate DIE from the income generated along the chain. However, it would be very transparent and would enhance data comparability across countries. Alternative C could make data more comparable across economies and reduce asymmetries. On the other hand, it would lead to a change in the measurement of the RIE and, therefore, of the GNI. Part of the drafting team was in favor of including the imputation of the RIE generated through the DI ownership chain separated as an "of which" in the reported data to improve global comparability and increase analytical value, while others preferred the simplification offered by Alternative C.

Issue 3: Investment Income Attributable to Investment Fund Shareholders – Retained Earnings

23. **Retained earnings (and net income) generated by investment funds should always be compiled regardless** either its type (open-ended vs closed-ended), assets held (e.g., equity, real estate funds or government bonds), dividend distribution policy (distributing vs cumulative), level of liquidity or

[14] See BEA Working Paper Series, WP2019-6 https://www.bea.gov/system/files/papers/WP2019-6_0.pdf

even the law/statute of constitution. The compilation of investment funds' income attributable to shareholders should be applied as suggested in this GN.

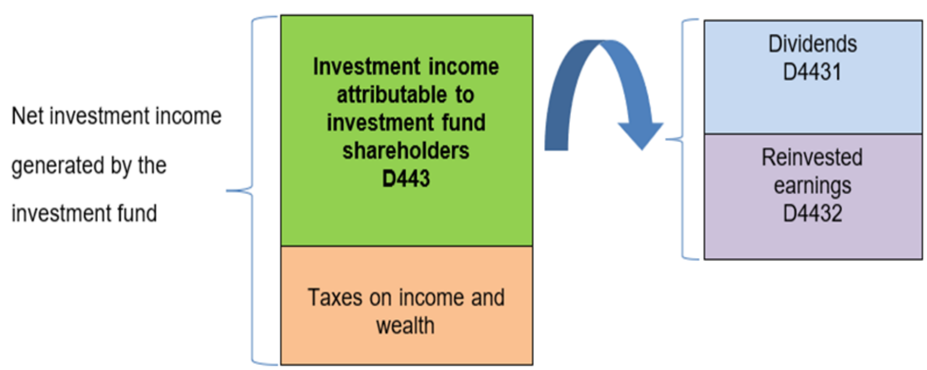
24. **Investment funds' assets pool generates different types of income and may also incur in income debits/uses (e.g., interest on loans or rents),** namely:

- Interests on debt securities and deposits (and eventually on loans taken) adjusted for financial intermediation services indirectly measured (FISIM);
- Dividends associated with equity securities;
- Rents on real estate;
- Investment income attributable to investment funds shareholders (only credits, e.g., for funds of funds); and
- Other income received (e.g., income attributable to insurance policy holders, standardized guarantees and pension funds).

25. **The income is recorded (i) on an accrual basis when referring to the interest received on debt instruments and rents (*BPM6,* paragraphs 11.49 and 11.89, respectively) and excluding FISIM from the former in the case of deposits and loans, and (ii) on ex-dividend date for equity related income (*BPM6*, paragraph 11.31).**

26. **The above net investment income generated by the investment fund is used in part to pay any taxes on income and wealth (attributable to the fund).** They should not be confused with those paid by the fund on behalf of the shareholders (the so-called "withholding taxes"). The residual is attributable to shareholders under the *2008 SNA* "investment income attributable to collective investment fund shareholders (D443)" (see Figure 2 below). Holding gains and losses are already excluded from the net income generated by the fund (*BPM6*, paragraph 11.39).

Figure 2. Statistical Treatment Overview of Income Attributable to Shareholders



27. ***BPM6* paragraph 11.38 phrasing "investment income attributable to investment fund's shareholders should exclude operating expenses attributable to the investment fund" is confusing.** To simplify, investment income is attributed to the shareholder as investment income on the one hand (Figure 2) and financial services incurred by the fund are charged to the shareholder as

financial services on the other hand. In other words, operating expenses are not charged to the shareholder through reduced attributable income (negative debits) but instead through exports of financial services (credits). Hence, operating expenses have no impact in the compilation of the net investment income generated by the fund and should be recorded as services (see Annex I).

28. **A distinction is needed whether operating expenses are explicitly paid by the shareholders or not.** Explicit expenses should be recorded as financial services paid by the shareholders to the respective counterpart (e.g., management company and brokers—see Annex I). The counterparts involved in explicit expenses are classified as financial auxiliaries ("S.126") as defined in *BPM6,* paragraphs 4.79–4.81. Expenses implicitly paid by the shareholders and FISIM[15] should be recorded for simplicity as financial services paid by the shareholders to the investment fund (classified as "S.123" or "S.124", see *BPM6,* paragraphs 4.73–4.75). Subsequently, a financial service transaction between the investment fund and the real service provider, the corresponding agents involved (e.g., the management company, brokers, custodians, auditors or promoters—all financial auxiliaries classified under "S.126") should be recorded. These financial services should exclude any taxes (on income and wealth) to be directly payable by the investment fund (from the respective assets). In both cases the identification of the residency of the different agents involved (e.g., the management company and the investment fund) is needed to correctly allocate exports/imports.

OPTIONS TO CONSIDER

SECTION II: OUTCOMES

Issue 1: Calculation of RIE

29. **To a certain extent, Direct Investment Task Team (DITT) members agree that the language of some paragraphs of *BPM6* should be improved to facilitate the understanding of RIE** and retained earnings and to remove some inconsistencies with the current treatment of RIE as transactions (i.e., paragraphs 3.4, 11.41, 11.34, and 11.43).

30. **All DITT members but one considered it relevant to clarify either in BPM or in the BPM Compilation Guide some aspects of RIE compilation.** In particular, the BPM Compilation Guide could include some useful examples, mapping with standard accounting terminology and country experiences to understand how modelling or other alternatives can be developed in place of data collection to avoid increasing reporting burden.

31. **The drafting team proposed to consider in the context of RIE a new interpretation of provisions, in particular regulatory provisions for bad loans in the definition of DI income, considering that provisions cannot be potentially distributed and therefore should remain as savings of the DIE, lowering the reinvested earnings.** This means that the income generated by the DIE would have three components: dividends (distributed), RIE, and savings that would be equal to the new provisions. While most DITT members agreed that the treatment of provisions could be re-considered in the revised BPM, they recognized that the issue needs to be more completely explored and discussed thoroughly with the AEG given its likely impact on the measurement of the GNI. Furthermore, some members understood that, although relevant for certain economies, for others, the

[15] Investment funds are FISIM consumers (e.g., when receiving a loan).

amounts would not be significant, thus rendering the cost/benefit of changing the current reporting unworthy. After considering the different views expressed, the DITT members favored the new proposal of presenting provisions as a memorandum item. This recommendation will facilitate the analysis of the effect of provisions on the profitability of the credit institutions while keeping the general statistical framework applied to provisions and most importantly not changing the measurement of GNI.

Issue 2: RIE Treatment/Classification Along the DI Ownership Chain

32. **There were conflicting views among the DITT members regarding the imputation of RIE from all the subsidiaries of the DI ownership chain vs only RIE from the immediately held DIE.** The majority of members agreed that from a conceptual and analytical point of view, the attribution of all the earnings generated below the DI ownership chain as RIE should be kept although most of them acknowledged the practical challenge of estimation. Half of the DITT members recognized that imputing only the RIE from the immediately held DIE would be the best option in terms of simplicity and minimizing asymmetry issues, since compilers would not need to collect very detailed information on ownership chains, which may not be readily available for some countries. However, a few members expressed strong concerns with this simplification from a conceptual point of view. Some members have much more experience and data available (e.g., the US), and it is suggested to include more detailed guidance as well as practical experience for compilers.

Issue 3: Calculation of RIE by Investment Funds

33. All DITT members agree **that RIE and net income should be always compiled regardless the funds attributes.** Furthermore, DITT members largely supported the methodological approach recommended in this GN, although it was recognized that it is challenging to implement in practice. The unavailability of data, in particular on the implicit costs, will be an important practical problem, which could only be mitigated by data sharing. The investment fund industry could provide some estimation guidelines based on available information that could be applied by statistics compilers.

Questions for Discussion:

Issue 1: Definition and Calculation of RIE

1) *Do you agree that* BPM6 *paragraphs describing retained earnings and reinvested earnings should be revised to reflect the discussion in paragraphs 15 and 16 above?*
2) *Do you consider it relevant to clarify and address, either in the revised BPM or in the BPM Compilation Guide, shortcomings in the compilation of DI income as described in* BPM6 *and to include examples of calculation of RIE?*
3) *Do you agree to separate as a memorandum item the obligatory provisions for bad loans when calculating the RIE for credit institutions?*

Issue 2: RIE Treatment/Classification Along the DI Ownership Chain

4) *Do you agree that the recognition of all the earnings generated down the DI ownership chain as primary income is best on a conceptual basis (Alternative A)? If so, do you think the practical challenges encountered by some countries justifies deviating from the conceptually preferred basis Alternative C?*
5) *If you prefer to keep the current guidance (Alternative A), do you agree that the presentation proposed in Alternative B (to report indirect income separately) would be useful to enhance transparency and data comparability across countries?*

Issue 3: Calculation of RIE by Investment Funds

6) *Do you agree that RIE and net income should always be compiled regardless of the fund's attributes?*
7) *Do you agree with the proposed treatment of operating expenses charged either explicitly or implicitly in the compilation of investment funds' RIE?*

Annex I. Agents Involved in the Activity of Investment Funds and the Suggested Statistical Treatment of Their Expenses (Fees)

Figure 3. Main economic agents engaged in the activity of investment funds

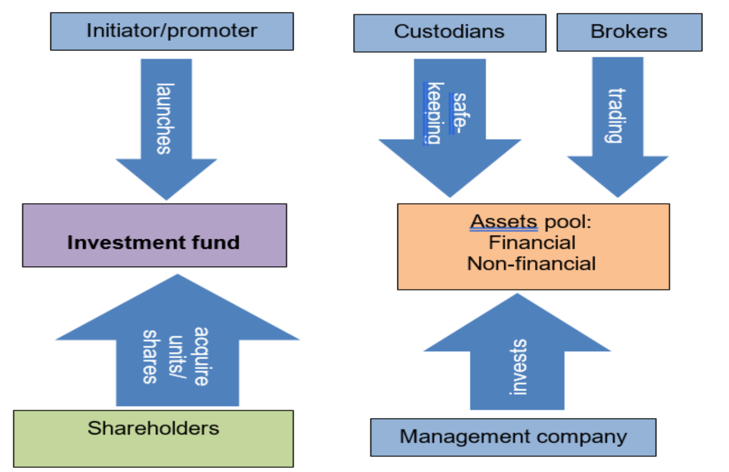


Figure 4. Statistical treatment of shareholders' implicit fees

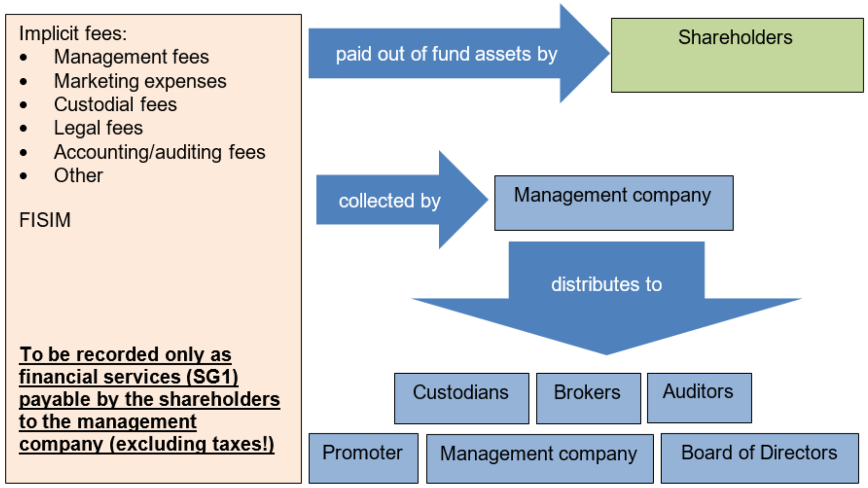
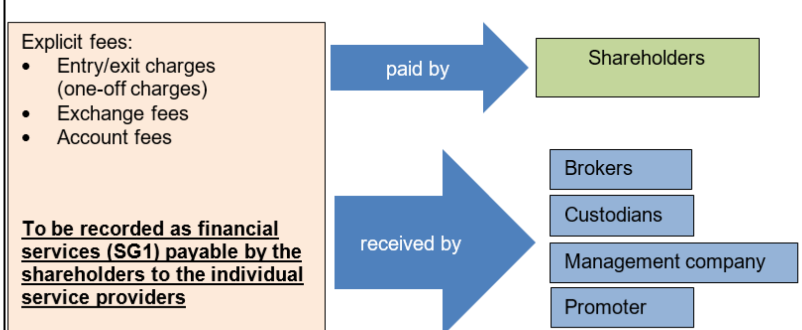


Figure 5. Statistical treatment of shareholders' explicit fees



Annex II. The Compilation of Investment Funds' Income Attributable to Shareholders on a Security-by-Security Basis: the ESCB[16] Experience[17]

1. In 2018, the ESCB Working Group External Statistics (WG ES) and Working Group Securities (WG SEC) initiated discussions regarding the technical implementation in the ESCB's Centralised Securities Database (CSDB)[18] of the income information directly provided by some National Central Banks (NCBs), on a security-by-security (SBS) basis (hereinafter "SBS income data").[19] Such workflow followed an agreement on the methodological treatment of investment funds' income,[20] as well as substantial enhancements of the CSDB data for investment funds.[21] All these efforts aimed at enhancing the CSDB and the national practices to compile investment fund income attributable to shareholders (hereinafter "IFs' income") in line with *BMP6* methodology.

2. The WG ES suggested approach to compile IFs' income is based on the CSDB output files that are data snapshots at end-month reference date. The approach requires the reconciliation of the reference dates of the CSDB output files, SBS income data directly reported by NCBs to the CSDB system and of the quarterly balance of payments data transmissions' deadlines to the ECB and Eurostat. This task is quite a challenge one since NCBs' inputs of the IFs' income data to the CSDB differ across countries in terms of timeliness and frequency. For instance, for the compilation of the 2019-Q4 quarterly balance of payments data (transmitted on March 20, 2020), the following CSDB timeline applied: the CSDB output files with December 2019 data were produced first in January 2020 and then revised in February 2020, but SBS income data were only made available on March 10, 2020 in the so-called "February-2020 extract"; and still only for those countries where the data are provided monthly with a delay of two-months (e.g., Luxembourg). For other countries, with (for instance) quarterly data or longer reporting lags, data for reference December 2019 was available in the CSDB output files later in the year. Figure 6 below shows the timeliness and availability of investment funds data for Luxembourg,[22] which typically provides monthly SBS income data with a two-month time lag.

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[16] European System of Central Banks.

[17] This Annex II summarizes the guidance drafted in 2020 by the ESCB Working Group on External Statistics entitled "*A Compilation Model for Investment Funds' Income Based on the CSDB Output Files*". This guidance includes an exhaustive analysis of the relevant CSDB attributes data coverage and quality as well as detailed IFs' estimates for selected euro area countries both on a monthly and quarterly basis.

[18] See the document "The Centralised Securities Database in brief" for further details on the CSDB.

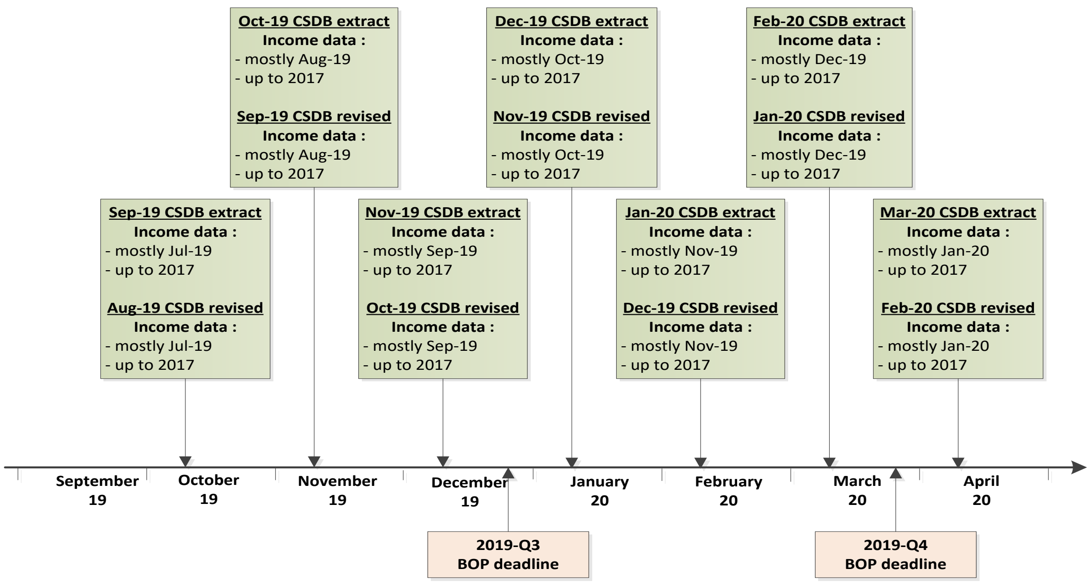
[19] The compilation details of SBS income data are rather heterogeneous across countries and based on national reporting templates where the funds detail the different sources of income generated as well as their expenses.

[20] This refers to the WG ES document drafted in 2018 and entitled "*Operating Expenses and Shareholders Fees of Investment Funds: Statistical Recording*", which covers the treatment of funds' explicit and implicit fees in line with the guidance included in this GN. Such WG ES document benefited from comments provided by the UN National Accounts section.

[21] Such enhancements referred to the funds data coverage and quality with a focus on those attributes relevant for the compilation of their income.

[22] Luxembourgish and Irish funds' market capitalization jointly represented around 90 percent of the funds cross-border traded within the euro area at the end of 2020.

Figure 6. Timeliness of the CSDB Output Files with a Focus on Luxembourgish Monthly Income Data



3. The suggested WG ES compilation model overcomes the above "timelines" challenge merging in a single dataset all the available information (CSDB output extracts) and following a decision tree distinguishing those cases where the specific fund has available SBS income data (this applies to those EU funds for which NCBs submit SBS income data to the CSDB) or has to be estimated using the so-called "Accrued Income Factor" (AIF) attribute from the CSDB. The AIF attribute estimates the daily rate of income generated for each fund and based on the available SBS income data for funds with similar characteristics[23] (i.e., they are the same fund type (e.g., closed-ended funds) or asset structure (e.g., equity funds)). An important element addressed in this compilation model is the frequency of the IFs' income which vary from weekly to annual. Such information is either directly reported by NCBs (for those funds with SBS income data) or derived by the CSDB system (for those funds with only AIF information). In addition, and for those IFs' income estimates based exclusively on the AIF, a seasonality ratio is considered and based on the information provided for those funds with SBS income data and clustered by fund type.

4. The IFs' income estimates using the ESCB WG ES compilation provide robust results, in line with those submitted to the ECB and Eurostat by those EU countries already following a SBS compilation approach[24] and substantially improving the results in those cases where a macro statistics estimation model is in place.

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[23] For those funds with SBS income fund is also available the corresponding AIF.

[24] For these countries, the main benefit of the ESCG WG ES approach regards the use of the income frequency information as well as the suggested "enhanced" (i.e., considering seasonality) of AIF information.

Annex III. Calculating Indirect RIE: Example of Recording RIE Along an Ownership Chain

1. In the following company group, A is the head of the company and holds directly 100 percent of the equities of B; B is the full owner of C, and C of D. Each company is resident of a different economy, and the information available is generally limited to the balance sheet information of the immediate subsidiary; therefore, the compilers of A and B may have difficulty to know the reinvested earnings of company C and D, respectively. However, A may know the information of all the group and, therefore, be able to calculate the income generated by B, C and D. Following the current standards, A should include as DI income the total NOS generated by the group (110) broken down by dividends (30) and RIE (80) and attribute it to the affiliate B even though not generated by it (see Table 1).

Table 1. DI Income Generated by Each Company in the Group

Ownership Share	Companies	NOS	+ Dividends Receivable	+ Enterprise's Share of RIE of any DIEs	- Dividends Payable	Non-Distributed
100%	A	-	30	80	-	-
100%	B	10	60	40	30	80
100%	C	80	15	5	60	40
	D	20			15	5
Total		110				

Note: the example assumes that the rest of the primary and secondary income transactions are zero and therefore do not have an impact in the DI income calculations of each company. Cells shaded in purple refer to information available for any immediate DIE.

2. B may only have the information available from the balance sheet of C and, therefore, miss the RIE of D that are imputed by compilers in C. This means that B would record in the Enterprise's share of RIE of C 35 instead of 40. The RIE payable to A would also be 35. It could be also assumed that if accounting standards require value assets at market value or it's approximation, retained earnings of D should be reflected in revaluation accounts of C, and therefore B may have access to a value that may not be COPC but could be a good proxy (all inclusive).

3. This Annex includes a few examples of different recording triggered by data availability and also different interpretations of *BPM6* paragraph 11.47. These examples show the difficulty of symmetrical recording among economies, and how the current methodology may lead to incomplete and non-comparable figures across economies. Cells shaded in green are entries according to *BPM6*, while cells shading in yellow show proxies that depend on the information available and the method used to calculate RIE.

4. Example 1 below reflects the current guidance (Option A) (i.e., perfect recording of the DI income following *BPM6*). All the countries can collect the necessary information to include the imputations of the non-distributed income generated by the subsidiaries below the DI ownership chain and they are also imputed as payable to the direct investor.

Example 1 *BPM6 Recording*							
Countries	Dividends Received	Dividends Paid	RIE Receivable[1]	RIE Payable[2]	Total Income Credits	Total Income Debits	Total Income Net
A	30		80		110	0	110
B	60	30	40	80	100	110	-10
C	15	60	5	40	20	100	-80
D		15		5	0	20	-20
Total	105	105	125	125	230	230	0

1) based on the accounts of the subsidiaries below the DI ownership chain.

2) based on the accounts of the subsidiaries below the DI ownership chain and those of the resident one.

5. Example 1a below reflects the current guidance from a methodological point of view with the presentation proposed in Option B (i.e., keeping the attribution of all the earnings generated below the DI ownership chain as RIE but reporting indirect income separately).

Example 1.a – Option a									
Countries	Dividends Received	Dividends Paid	RIE Receivable[1]		RIE Payable[2]		Total Income Credits	Total Income Debits	Total Income Net
				of which indirect		*of which indirect*			
A	30		80	*40*			110	0	110
B	60	30	40	*5*	80	*40*	100	110	-10
C	15	60	5	-	40	*5*	20	100	-80
D		15			5	-	0	20	-20
Total	105	105	125		125		230	230	0

1) based on the accounts of the subsidiaries below the DI ownership chain.

2) based on the accounts of the subsidiaries below the DI ownership chain and those of the resident one.

6. Example 2 reflects only the imputations related to the immediate DIE. This example corresponds to Option C under Issue 2. This alternative does not reflect all of the RIE receivables and payables for all entities in the DI ownership chain, however it is probably the most usual compilation and it is the best option in terms of minimizing asymmetries since compilers wouldn’t need to collect very detailed information on ownership chains, which may not be readily available for some countries.

Example 2 Immediate Counterpart - Option C							
Countries	Dividends Received	Dividends Paid	RIE Receivable[1]	RIE Payable[2]	Total Income Credits	Total Income Debits	Total Income Net
A	30		40		70	0	70
B	60	30	35	40	95	70	25
C	15	60	5	35	20	95	-75
D		15		5	0	20	-20
Total	105	105	80	80	185	185	0

1) based on the accounts of the immediate subsidiary.

2) based on the resident accounts without making the connection of the DIE and Direct investor.

7. Example 3 reflects a mixed approach by the reporting countries. In this example only the country where the head of the company is resident (A) can record the imputations of the non-distributed income generated by the subsidiaries below the DI ownership chain as described in *BPM6*. The rest of the

countries are only recording the RIE generated by the immediate DIE. This example may explain the large asymmetries between the EU and the US in the current account.[25]

Example 3 Only the Head of the Company Implement Those Implicit Earnings							
Countries	Dividends Received	Dividends Paid	RIE Receivable[1]	RIE Payable[2]	Total Income Credits	Total Income Debits	Total Income Net
A	30		80		110	0	110
B	60	30	35	40	95	70	25
C	15	60	5	35	20	95	-75
D		15		5	0	20	-20
Total	105	105	120	80	225	185	40

1) based on the resident accounts without making the connection of the DIE and Direct investor.

2) based on the accounts of the immediate subsidiary for B and C; A makes the calculations based on the accounts of the subsidiaries in the DI chain.

8. Example 4 also reflects a mixed approach by the reporting countries. As in Example 3, the country where the head of the company is resident (A) can record the imputations of the non-distributed income generated by the subsidiaries below the DI ownership chain, while the rest of the countries impute RIE from the subsidiary below to the immediate parent together with RIE generated by the resident company. This mixed approach may also explain relevant bilateral asymmetries between economies, however, on a net basis, these asymmetries seem to cancel off.

Example 4 Mix of Immediate Counterpart and *BPM6*							
Countries	Dividends Received	Dividends Paid	RIE Receivable[1]	RIE Payable[2]	Total Income Credits	Total Income Debits	Total Income Net
A	30		80		110	0	110
B	60	30	35	75	95	105	-10
C	15	60	5	40	20	100	-80
D		15		5	0	20	-20
Total	105	105	120	120	225	225	0

1) based on the accounts of the immediate subsidiary for B and C; A makes the calculations based on the accounts of the subsidiaries in the chain.

2) the receivable RIEI imputed from the subsidiary below is also imputed to the immediate parent (payable together with the RIE generated by the resident company).

[25] See BEA Working Paper Series, WP2019-6 https://www.bea.gov/system/files/papers/WP2019-6_0.pdf