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## Eurostat Guidance on accounting rules for EDP<sup>1</sup>

### Financial derivatives

#### Executive summary

*This note examines the appropriate accounting treatment under the ESA 1995 and the excessive deficit procedure (EDP) of some specific financial derivatives transactions (swap cancellations, off-market swaps and interest rate based options), with the aim to ensure an appropriate measurement of the government deficit and debt, as well as an homogeneous treatment across Member States, in the light of the ESA 1995 principles and rules and of the exception for swaps and forward rate agreements, regulated by Regulation 2558/2001, foreseen for EDP to these ESA 1995 rules.*

*Lump sums paid or received by government on swap cancellations, corresponding to the discounted value of expected streams of payments, do not enter the EDP correction for the "streams of interest payments on swaps and forward rate agreements" at time of cancellation and are, thus, without impact on the government deficit/surplus at that time. Instead, these lump sums on early termination shall enter the EDP correction spread over the theoretical remaining life of the swap, with an impact on the government deficit/surplus, so to be consistent with the accounting impact of swap offsets.*

*Lump sums exchanged at inception on off-market swaps should be classified as loans (AF.4) under ESA 1995, with an impact on the Maastricht debt when the lump sum is received by government. Off-market swaps are to be partitioned in the ESA 1995 balance sheet into a loan component and a regular (at-the-money) swap component. Similarly to swap cancellation, the EDP correction line does not include the lump sum at inception on off-market swaps, but includes streams of interest payments on off-market swaps corrected for the amortization of the lump sum over the life of the contract.*

*These guidance apply for all swaps, hedging or non-hedging.*

*Premiums and settlements on swaptions and other interest rates options (e.g., caps, floors) should be considered as financial transactions for EDP purposes, without impact on the government deficit/surplus. Flows related to such swaptions, caps and floors should not lead to entries in the EDP correction line. This guidance does not concern the case of embedded options.*

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<sup>1</sup> This Guidance note is released under the responsibility of Eurostat. Member States have been consulted within the framework of the Financial Accounts Working Group (FAWG), where this Guidance note received broad support.

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This note examines the appropriate accounting treatment under the ESA 1995 and the excessive deficit procedure (EDP) of some specific financial derivatives transactions (swap cancellations, off-market swaps and interest rate based options), with the aim to ensure an appropriate measurement of the government deficit and debt, as well as an homogeneous treatment across Member States, in the light of the ESA 1995 principles and rules and of the exception for swaps and forward rate agreements, regulated by Regulation 2558/2001, foreseen for EDP to these ESA 1995 rules.

## **I. Introduction**

### **I.1. Background**

1. Eurostat has been contacted by Member States seeking advice on the recording of lump sums on swap cancellations as well as on options on swaps and forward rate agreements (FRAs).
2. In the context of the April 2007 and October 2007 notifications, Eurostat also enquired with Member States about the use of specific financial derivatives and their treatment in national accounts and for EDP purposes. The recordings reported appeared to be somewhat heterogeneous across Member States. For example, some Member States extend the exception foreseen for EDP to the ESA 1995 rules (regulated by Regulation 2558/2001) for "*stream of interest payments on swaps and forward rate agreements*", to lump sum payments resulting from swap cancellations and/or to swaptions and options on interest, while others do not. Hence, the necessity of harmonizing at EU level national practices.
3. In addition, a question has been raised (January 2007 FAWG meeting) relating to the appropriate recording of so called "*off-market swaps*", i.e. swaps that have a non-zero market value at inception, and to their impact on the (Maastricht) government debt and deficit.
4. The guidance covered in this note is limited to cases of early termination of interest rate swaps, off-market interest rate swaps, and options. Some other derivative instruments such as currency swaps, foreign exchange swaps, or structured derivatives such as swaps with embedded options are not addressed in this note. These latter issues deserve further elaborations and might require other specific guidance in the future from Eurostat.

### **I.2. Reminder**

#### **Swaps and off-market swaps**

5. In the following, the analysis is conducted using interest rate swaps (IRS), but can be extended to many other swaps.
6. An IRS is an agreement between two parties to exchange interest payments (e.g. from fixed to floating interest rate or vice versa) on the same principal amount (notional amount) for a fixed period of time. The principal amount is not exchanged. The fixed rate is agreed at inception and the floating rate is a short-term rate observable on the market (money market rate, T-bill rate, etc.) as published by authorized parties.

7. Payments based on the fixed interest rate and payments based on the floating interest rate are generally netted in order to avoid unnecessary transfers between parties, and only a net value is transferred from one party to another. However, the periodicity of the fixed leg commonly differs from that of the variable leg.

8. Swaps are generally agreed using the current market fixed interest rate observable at inception, with the consequence that the market value is zero at inception ("par swaps"). Cases of swaps with a nonzero market value at inception exist; these are often called "off-market" swaps, and a lump sum payment at inception is to be paid by one party to the other.

9. The party receiving the fixed rate is said to be long, and the party receiving the floating rate is said to be short. This is because the "long" has a similar exposure as if borrowing short-term and buying a bond, or if buying a bond future; the "short" has a similar exposure as if borrowing long-term and buying short-term instruments (or borrowing a bond and on-selling it, a widespread technique called *short-selling*), or if selling a bond future.

### **Options**

10. A part of this note is devoted to another type of financial derivatives: options. An option is a financial derivative that represents a contract sold by the option writer (issuer of the option) to the option holder. The contract offers the holder the right, but not the obligation, to buy (call option) or sell (put option) a financial or non financial asset (underlying asset) at an agreed-upon price (the strike price) during a certain period of time or on a specific date (exercise date). The purchase of the option is conducted by way of paying a premium. This premium is either disbursed as one cash flow on the value date of the transaction, or disbursed as an annuity over the life of the underlying instrument. The options might have swaps and FRAs as underlying instruments. When swaps are the underlying asset of an option, the option is called swaption, and the agreed "strike price" relates to the fixed rate. Options on FRAs are called caps and floors.

11. Options are to be marked-to-market, and changes in their value reflects (1) the change in the market price of the underlying asset, (2) the change in uncertainty associated to this price (volatility), and (3) the passing of time. When time passes, the price of options falls, to zero when the price of the underlying asset is below the strike price in case of a call (or above the strike price in case of a put), or otherwise towards the difference between the two.

12. Contrary to swaps, options are assets which value cannot fall below zero, that is: they cannot become liabilities to the asset holder with time, because these are optional contracts where one party (the option holder) has no obligation, and the other party has no choice. For that latter party, the liability remains until redemption.

### ***General accounting issue***

13. Swaps or options thus give rise to flows, such as payments, at various moments (e.g. at inception, during the life of the instruments, or at termination), and the question is the appropriate accounting treatment of such flows.

### I.3. Accounting principles

#### Swaps

14. Under ESA 1995, streams of interest payments resulting from swap arrangements and forward rate agreements are not to be recorded as property income, and all settlements are to be recorded in the financial account.<sup>2</sup> ESA 1995 paragraph 4.47 states: "*No payment resulting from any kind of swap arrangement is to be considered as interest and recorded under property income. Similarly, transactions under forward rate agreements are not to be recorded as property income.*"

15. However, Regulation (EC) 2558/2001<sup>3</sup> foresees the specific treatment of these flows for the data transmitted under the EDP. Under EDP, the balancing item "net borrowing/net lending" (EDP B.9) of general government includes "*streams of interest payments resulting from swap arrangements and forward rate agreements*". It should be noted that this is the sole deviation between the ESA 1995 balance and the EDP balance: thus the notified deficit/surplus (EDP B.9) deviates from the ESA 1995 net lending / net borrowing (B.9) only by these "*streams of interest payments resulting from swap arrangements and forward rate agreements*". Information on this difference between the two concepts is routinely reported by Member states to Eurostat during the deficit and debt notifications, within the EDP notification table 1, and is closely monitored.

16. The main rationale for supporting the EDP correction for swaps was based on the reasonable perception, argued by European debt managers at the time of ESA 1995 amendment, that it was inappropriate to record a government expenditure (property income), and thus an impact on the deficit, on a bond issued and swapped on the basis of the interest before swap. From an economic perspective, it was felt that the appropriate property income (and the impact on the deficit) should be the interest after swap. As a result, it was decided by the Council and European Parliament to go along with the ESA 1995 amendment that foresaw that *stream of interest payments resulting from swap arrangements and forward rate agreements* would be financial transactions, but allowing under EDP for a specific deviation to the ESA 1995 in this respect.

17. It should be noted that the EDP correction for swaps is not limited to the streams of interest payments on hedging swaps and FRAs, and concerns all swaps and FRAs.

18. Nevertheless the Regulation is not specific enough, notably with respect to the treatment of swap cancellation payments, leaving some room for interpreting the notion of "*streams of interest payments resulting from swap arrangements and forward rate agreements*" and their exact composition.

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<sup>2</sup> This rule exists since the amendment to the original ESA 1995 (and SNA 1993) conducted in 2001 (Regulation (EC) No 2558/2001 of the European Parliament and of the Council). The original text of ESA1995 followed the original SNA 1993 text, and classified those flows as property income (interest). Interestingly, the original text of ESA 1995 nonetheless deviated from SNA1993, with explicitly recognizing swaps as on-balance sheet instruments.

<sup>3</sup> Regulation (EC) No 2558/2001 of the European Parliament and of the Council of 3 December 2001 amending Council Regulation (EC) No 2223/96 as regards the reclassification of settlements under swaps arrangements and under forward rate agreements

## ***Options***

19. Under ESA 1995, options are contingent assets that are recognized on balance sheet, to be included in the sub-category financial derivatives (AF.34). This is because the ESA 1995 paragraph 5.05 reads: *“In the system, a contingent asset is a financial asset in cases where the contractual arrangement itself has a market value because it is tradable or can be offset on the market. Otherwise, a contingent asset is not recorded in the system”*. The ESA 1995 paragraph 5.67 (a) states: *“(…) The purchaser of the option pays a premium (the option price) for the commitment of the option writer to sell or to purchase the specified amount of the underlying asset or to provide, on demand of the purchaser, appropriate remuneration. By convention, that commitment is treated as a liability of the option writer because the option price represents the current cost to the option writer of buying out his contingent liability”*.

20. The ESA 1995 paragraph 5.139 (c) (as amended) states that: *“While the premium paid to the seller of an option can conceptually be considered to include a service charge, in practice, it is usually not possible to distinguish the service element. Therefore, the full price is to be recorded as acquisition of a financial asset by the buyer and as incurrence of a liability by the seller.”*

21. No differences in accounting treatment between ESA 1995 and EDP is foreseen for options.

## **II. Accounting for lump-sums on swaps cancellation**

### **II.1. The issue**

22. Accounting issues arise when dealing with early settlement of interest swap agreements. It might happen that one party wants to annul the effect of, or exit from, a swap agreement before its termination date. In practice, that party can either:

- Contract a matching swap to cancel the effect of the previous swap, by simply agreeing on a contract with reverse flows or equivalent reverse flows (offset), either with the same counterparty or with another counterparty on the market.
- Approach the original party of the contract and agree to cancel the contract. In this case, a lump sum payment corresponding to the market value of the swap (that results from the difference between the current market long rates and the defined fixed rates of the contract) has to be paid.

23. It should be noted that offsets can be effectively conducted with different fixed rates. Assume a long 10-year swap position entered at par when the market rate was 5%, thus with a fixed rate of 5%. Assume the market rate immediately moved to 6%. An offset would simply involve entering into a short swap with a fixed rate of 6%. The variable rate legs compensating each other, the net position leaves a fixed net stream of payments of 1% for 10-year to be made, which present value is about 7.3% (i.e., 7.3 for a notional value of 100). An alternative is to cancel the swap by accepting to pay a lump sum close to 7.3%. Another type of offset would have similarities with a cancellation: entering into an off-market swap with a 5% fixed rate, and pay a lump sum at inception of 7.3%.

24. Interest rate swaps are recorded on the balance sheet at market value, by marking to market, i.e., by taking the present value of the known and expected (or unknown) future streams of payments. In practice, these expected future streams of payments can be calculated by comparing the agreed swap

fixed rate with the observable forward price of relevant short-term rates. In a first step, the expected (or unknown) flows, which are the floating coupons, are derived from the current interest rate curve. In a second step, discount factors are derived from the curve and then used to calculate the present value of all known and expected flows.

25. Whereas the market value of a swap reflects the present value of future flows, it can be noted that the market value of the swap can alternatively be seen as arising from past payments as well as from holding gains/losses due to market changes. This perspective of seeing the value of a swap as reflecting past payments and holding gains/losses justifies the view taken in national accounts (ESA 1995/SNA 1993) – that the streams of interest payments are financial transactions and not property income. This is because, each payment on a swap leads to an increase or decrease in the swap value for the same amount, and, as such, is neutral from the point of view of net assets of the parties: such payments cannot be seen as revenue/expenditure (i.e. resources / uses in national accounts) but are instead seen as financial transactions. Recognizing a revenue (/expenditure) on a swap payment would require a matching entry in the revaluation accounts (K.11) in financial derivatives (AF.34), in such a way that the impact on net assets is zero (the revenue being compensated by a holding loss; or the expenditure by a holding gain), which would be purely artificial.

26. Changes in value of the swap also reflect, in addition to settlements, the impact of the (unexpected) changes in market rates, which enter naturally into the revaluation accounts. It also reflects amounts related to interests earned on the accumulated cash exchanged (paid or received) to date, which also enters the revaluation accounts in financial derivatives, by convention (another convention could have been retained in ESA 1995), reflective of the fact that no property income is seen to accrue in ESA 1995 on the market value of the swap.

27. While lump sum payments on swap cancellations are financial transactions in financial derivatives (F.34) in ESA 1995, without debate, the question is whether those amounts should be entered in the correction for swaps under EDP, and if yes:

- when: at time of cancellation, or spread over time?
- for what amounts: for the full value, or only for the accumulated payments to date?
- for what instruments: for all swaps, or only for those for hedging?

## **II.2. Analysis**

### ***Entering the amounts in the EDP correction line***

28. The main rationale for supporting the EDP correction for swaps was based on the reasonable perception that, from an economic perspective, the appropriate property income on bonds issued (and the impact on the deficit) should be the interest after swap.

29. By the same token, a lump sum cancellation might be considered to affect the total debt cost of the remaining hedged bonds. There would thus seem a rationale to consider the lump sum as income under EDP to be spread over the life-time of the bond.

### *Nature of the amounts involved*

30. A lump sum on swaps cancellation corresponds to the present value of expected stream of interest payments (in future), as measured at time of cancellation. This value is not the same as the sum of the present value of streams of interest payments calculated at time of swap contract. This is because this latter amount corresponds to the present value of the lump sum.

31. In concept, this same lump sum for the same amount can analytically also be split into two parts: an element of prepayments made and an element of holding gain/loss.

32. The value of a swap is measured by taking the present value of the expected remaining streams. Hence, the lump sum reflects notably some expected "gain/loss" to the end of the contract compared to initial expectations, but not only that. This amount does not also correspond to the (full) holding gain/loss on the contract.

### *EDP correction at time of cancellation*

33. Recording, within the EDP correction, the amounts related to lump sums on swap cancellations for the full amount, at time of cancellation, is not acceptable, in practice and in concept. This is because such a lump sum in a given period is not representative of a net cost (related to property income) in that period arising on government debt.

34. Such a recording would also allow governments to front-load at will EDP expenditure or revenue, by way of mere financial engineering and for nearly unlimited amounts. This is because any party can contract back-to-back swaps that create zero exposure and zero cash flows whilst creating both an asset and a liability. The cancellation, later on, of the asset (for instance) only, at T, would be recorded as a revenue. The newly created exposure can then be neutralized by way of immediately contracting an appropriate par swap, at little transaction cost. Note that after such a neutralization transaction, periodic flows of fixed expenditure will be recorded under EDP from T+1 onwards. Thus, such arrangements could shift in theory B.9 between now and the future by mere way of financial engineering.

35. In case the lump sums on swap cancellations would enter the EDP correction line at time of cancellation, it is noteworthy to observe that the ability to front-load at will expenditure or revenue by way of mere financial engineering could be easily enhanced, in case "off-market swap" are used and in case the lump sum at inception on off-market swaps would be entered in the financial accounts (and this is difficult to see how such lump sum would not enter the financial accounts) – see section IV. below.

### *EDP correction spread over time*

36. One could argue that a lump sum payment on swap cancellations could be considered as an advance on interest payments, as it seems not very different in its nature from the other payments on swaps. This would suggest treating such a lump sum as interest expenditure / revenue for EDP purposes (by way of entering it in the EDP correction line), but spread over the remaining life of the instrument.



37. An apparent conceptual weakness is that a flow of EDP expenditure / revenue would be recorded even when the instrument does not exist any more, and even after one of the party disappeared. However, whereas the ESA 1995 expenditure and revenue need to have a counterpart sector, this is not necessarily the case of EDP expenditure and revenue. This is because the EDP correction is arguably an artificial one, specifically designed to measure the EDP government deficit.

38. Another potential conceptual weakness is that spreading the lump sum on swap cancellation would deviate in its recording, under EDP, from the analogous event of bond buy-backs. Indeed, the difference between the buyback value and the nominal value is without impact on the government deficit at time of buy-back or later on, as there is no entry in the nonfinancial accounts (such a difference will have generally entered the revaluation accounts during the life of the bond). Recording the swap cancellation with an impact on the government deficit under EDP seems to create an inconsistency. However, it can be argued that to the extent that the EDP correction line is artificial, it is not surprising that it creates some inconsistencies. And in contrast, under ESA 1995 rules, a bond repurchase and a swap cancellation lead to identical accounting results. In conclusion, this is a substantial argument against spreading. However, in practice, this conceptual consideration is moderated by the fact that bond buy-backs are more difficult and costly operations to carry than swap cancellations/offsets. Thus, there is no imperative need to enforce consistency of treatment in this respect.

39. It has been argued that spreading the lump sum on cancellation would be against the accrual principle. However, the accrual principle cannot mean that events that lead to settling, or accelerating, future revenues in advance are normally to be recorded as revenue in that period. Settling in advance future revenues is often seen in national accounts as a financial transaction. As an example, in a bond buy-back, buying back a bond could be seen as settling in advance future interest payments; however, such a buy-back fully enters the financial accounts. It may be noted that such a buy-back might create a situation where, over the whole life of a bond, holding gains/losses arise. (The debtor principle ensures that generally no holding gains/losses are observed on a bond that exists from issuance to maturity.) Securitizations are also cases where accelerations of proceeds do not lead to revenues. In addition, this EDP correction line is essentially an artificial one. Finally, other accounting standards suggest spreading, in some circumstances of lump sums on swap cancellations, the recognition of a revenue ("earned revenue") – see below.

40. The three objections above provide some arguments in favour of not entering the lump sum on swap cancellation in the EDP correction line spread over time. However, these have to be balanced against major operational disadvantage arising from not spreading the lump sum.

41. A noticeable advantage of the spreading solution is that it would yield the same result than a situation where a matching (offsetting) regular swap (i.e. not off-market) was contracted. In that case, the party that would have been paying the lump sum under a swap cancellation would instead be paying the same amounts (in present value) in the form of a stream of fixed payments over the future.

42. It should be noted that this is not only an analogy. On the contrary, operators are rather free to opt, for an identical financial result, for either of the two techniques. It would then seem fully inappropriate that the two techniques lead to two different accounting results. If that were to be the case, there would

be a clear and strong accounting incentive for loss-making swaps to be cancelled, whereas profit-making swaps would be offset, leading to a bias in the deficit as measured by EDP B.9. This needs to be avoided.

43. Arguably, spreading the lump sum is not explicitly mentioned in the wording of the Regulation. There is a need to interpret the meaning of the Regulation. A literal reading could imply to include a lump sum on the early termination of a swap into financial transactions – with the significant drawback to treat offsets and cancellations differently. Whereas, the wording in the Regulation is not precise, it nonetheless should be read taking into account the widely used market practices at the time of the regulation. This is because the Regulation provision for an *ad hoc* exemption to the ESA 1995 system must have limited effects, and the perceived scope of the exemption must have fundamentally been informed by the market practices at that time. This consideration also applies to off-market swaps.

#### ***Other "standards" recommendations***

44. It can be noted that certain accounting standard setters prescribe spreading the lump sum in some circumstances, for instance an early guidance by the Australian Accounting Standards Board (AASB). In Abstract 29, issued by its "Urgent Issues Group", in December 2000, specifies the accounting rules applicable for gains and losses arising from early termination of interest rate swaps that are effective hedges, and reads: "*When an interest rate swap is terminated early and the hedged anticipated interest transactions are still expected to occur as designated, the gains and losses that arise on the swap upon its early termination must continue to be deferred and included on a systematic basis in the measurement of those anticipated interest transactions when they occur.*" and "*When an interest rate swap is terminated early and the hedged anticipated interest transactions are no longer expected to occur as designated, the gains and losses that arise on the swap upon its early termination must be recognised in the profit and loss or other operating statement as at the date of the termination.*"

45. It should be noted that this AASB pronouncement applies to hedging IRS only: "*(a) entered into by an entity to reduce its exposure to financial risks underlying the interest receipts or payments associated with recognised assets or liabilities; and (b) expected, at inception of the swap and subsequently, to be effective in reducing that exposure.*"

#### ***All swaps, or swaps used for hedging?***

46. Given the rationale being used, one wonders whether the proposed recording should be limited to lump sum on cancellation of hedging swaps only. However, although some advised (while drafting the amending Regulation) to restrict the EDP correction to hedging instruments, the Regulation did not follow this line. It would thus seem anomalous, at this stage, to use the hedging criteria for interpreting the EDP correction for swaps.

47. And on the contrary, as mentioned above, strategies of un-hedged swaps portfolios could generate systematic government net revenue, if lump sum on cancellations of un-hedged swaps would be treated in the financial accounts.

## ***Conclusion***

48. In summary, Eurostat recommends to consider lump sums on cancellation of swaps as financial transactions for EDP purposes at time of cancellation, i.e. without entry in the EDP correction line for swaps.

49. However, the lump sum should enter the EDP correction line spread over the remaining life of the instrument for all swaps, and for the whole amount of the lump sum. This is in order to ensure homogeneity of treatment of swap cancellations with swap offsets, despite the fact that the instrument has disappeared and that the original counterpart transactor might have disappeared too. In addition, the Regulation does not foresee distinguishing hedging swaps from others (despite a clear rationale to do so).

## **II.3. Guidance**

50. Lump sums paid or received by government on swap cancellations do not enter the EDP correction at time of cancellation, and are thus without impact on the government deficit/surplus at that time, but enter the EDP correction spread over the remaining theoretical life of the swap, with an impact on the government deficit/surplus, for all swaps and for the whole amount of the lump sum (discounted value of expected streams of payments).

## **III. Options**

### **III.1. The issue**

51. A basket of two options (call and put) of same strike price, equal to the forward price, can be in fact equivalent to taking a forwards/future. Buying a call and selling a put at the forward price is identical to buying a forward/future (e.g. betting on an increase in price). Selling a call and buying a put at the forward price is identical to selling a forward/future (e.g. betting on a decrease in price). By arbitrage, the call and the put at the strike price equal to the forward price should have identical market values.

52. Regulation (EC) 2558/2001 does not provide explicit guidance on the accounting treatment of payments from option contracts. Some uncertainties might occur while dealing with options on swaps (swaptions) and options on FRAs (i.e. options that have swaps and FRAs as underlying instrument). There might be a willingness to extend the notion of “streams of interest payments resulting from swap arrangements and forward rate agreements” used in the Regulation to swaptions and options on FRAs.

53. The question is to determine the classification of the flows at time of creation or of purchase of the option, as well as at time of resale or of settlement. While under ESA 1995, flows relating to options are financial transactions, the question is whether these flows (and, if yes, which ones) could or should be entered in the EDP correction lines for swaps (and for what amounts and for what time of recording).

### **III.2. Analysis**

54. Option contracts are freely negotiated among the parties and the strike price can be set arbitrarily at relatively low levels for calls (high levels for puts). Consequently, the premium to be paid might produce large amounts of settlement payments. Taking into account these specific features of options, such flows cannot be recorded as non-financial transactions for EDP purposes. In practice, the interest rate options more commonly traded often have a strike price struck at close to the forward rate or slightly above or under it.

55. The fact that options can be packaged in a way that may constitute synthetic FRA or even synthetic forwards on swaps seem an insufficient reason to extend the EDP correction to these items.

56. When an option premium is not paid at once but is delayed, a payable is to be recorded by the option purchaser at inception, and the market value of the derivative is to be recorded on the asset side. In case swaps have embedded options with no upfront premium settlements, i.e. where the premium is spread over the life of a swap (i.e. is included in the streams of swap payments), there might be an issue on how to account for this in the EDP correction line. While there seems to be little reason to believe that the general principle (all flows related to options should be excluded from EDP correction line) should not be applied, more elaborated analysis and guidance would be needed for those specific circumstances; this issue is outside the scope of this Guidance note.

### **III.3. Guidance**

57. Premiums and settlements of swaptions and other options on interest rates should be considered as financial transactions for EDP purposes, without impact on the government deficit/surplus – at least for non-embedded options. Flows related to such swaptions, caps and floors should not lead to entries in the EDP correction lines for "*streams of interest payments on swaps and FRAs*".

## **IV. Off-market swaps**

### **IV.1. Reminder**

58. Off-market swaps are swaps where a lump sum is paid at inception by one party to the other. Off-market swaps have a non-zero market value at inception, contrary to regular swaps for which the market value is zero at inception.

59. For instance, an off-market IRS involves using a fixed rate that deviates from the current market long interest rate observable at inception. If the observed market long-term rate is 5%, regular IRSs generally involve exchanging 5% of a notional amount against a floating rate on the same notional amount. In an off-market swap, the fixed rate might be negotiated at 6%, with the consequence that the short party (the party receiving the floating) will pay 1% more a year during the whole life of the contact. In such a 10-year off-market IRS swap, the long party will pay to the short party a large lump sum at inception of about 7.7% (i.e. present value of 10 payments of 1%). Such an up-front payment should be seen as compensation for the party contractually obliged to pay a higher fixed rate.

60. Off-market swaps are also used in synthetic asset swaps. An asset swap is an arrangement where two parties agree to exchange not only the intermediate payments generated by two assets but also a final payment representing the difference in the market value of the assets. Off-market swaps can be used in the context of bond exchanges.

#### **IV.2. The issue**

61. The accounting issue is to consider the appropriate classification of the lump sum at inception both in ESA 1995 as well as under EDP, with a view to appropriately measure the Maastricht deficit and debt.

62. At first sight, it would seem that the lump sum should be considered as a financial transaction under the ESA 1995 category F.34 financial derivative. However this creates a situation where the government debt might be systematically underestimated. Alternatively, the lump sum might be considered as F.4 loans, with the implication that off-market swaps would be partitioned, leading to two recording at inception: a loan (F.4) for the value of the lump sum, and a financial derivative (F.34) for a zero value (exactly as a regular swap).

63. Another issue is the appropriate recording under EDP: should the lump sum be entered under the EDP correction line, when and for what amounts?

#### **IV.3. Analysis**

##### ***Loans or derivatives?***

64. The back-to-back issue of an off-market swap with a matching regular swap creates a cash inflow now (or the reverse), against fixed cash outflows later (or the reverse). In this case, it seems difficult not to consider that, in such an arrangement, a loan has been contracted between the two parties.

65. The question is however how to record a plain off-market swap. Such a swap can either be interpreted as a single swap, or alternatively as a back-to-back swap together with a matching regular swap (thus, a third swap). Though apparently artificial and convoluted, this last presentation has nonetheless the advantage to reasonably capture the essence of the intention behind the lump sum.

66. Contracting parties entering swaps aim at exposing themselves to a risk (including in order to hedge another risk), and they do so using the market references applicable (e.g. the fixed rate). Using a different rate implies a lump sum, which suggests that the intention and the nature of the transaction is or can be seen different.

67. It would therefore seem appropriate, from an economic analysis perspective, to consider that the lump sum is in fact borrowing, in the form of a loan F.4, with the implication that the streams of interest payments later on would be partitioned in ESA 1995, between a loan reimbursement (F.4) component<sup>4</sup> and a genuine flow of derivative (F.34) component.

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<sup>4</sup> As well as an interest component (D.41).

68. In the balance sheet, there would be two entries: a loan position AF.4 falling over time to zero, and a derivative position AF.34, with an initial zero value, reflecting the movement of the off-market swap itself (net of the loan). The loan position is a liability of the party that receives the lump sum, while the derivative position may appear either on the asset or on the liability side, depending on the profile of streams of payments and on holdings gains/losses incurred to date.

69. It may be noted that the way off-market swaps are accounted by the various units composing the economy (corporations, banks, insurers, government) may vary, pending unification of accounting standards and further progress on how to account for complex products. This provides certainly scope for differences in reported data across sectors. However, this would not be a justification to favour in concept one recording or another.

### *EDP correction line*

70. With respect to the EDP correction line, it is clear that the lump-sum payment at inception cannot enter the EDP correction line. This is similar to the reasoning for lump sums on swap cancellations. Such a lump sum in a given period is not representative of a net cost (related to property income) in that period arising on government debt.

71. Recording such a lump sum in the EDP correction line at inception would allow changing at will the EDP deficit figure from one year to the next. This is because governments have nearly unlimited ability to enter into swap contracts and because any market exposure created by a swap can be neutralized with contracting other swaps, or other derivatives, for limited costs (a commission fee).

72. Secondly, it would not seem correct that the streams of interest payments on an off-market swap enter the EDP correction line for the full amount. This is because a part of those payments corresponds to the mere reimbursement of the lump sum. Thus, if the lump sum does not enter the EDP correction line at inception, the amounts of the streams of interest payments pertaining to this lump sum should not enter the EDP correction line (later on at time of interest payments) either. Otherwise, government could contract off-market swaps with initial payments that would yield systematic EDP B.9 improvements (because the initial payment would not enter EDP B.9, while the future receipts would).

73. In conclusion, the amounts to enter the EDP correction line should be the stream of interest payments net of the reimbursement (i.e. amortization) of the lump sum. Note that such a recording can be rationalized in two different ways. The lump sum at inception should enter F.4, and consequently part of the stream of interest payments must be classified as F.4 (i.e. reimbursements). Or, the lump sum at inception, to be considered as revenue gained, is to be spread over time, just like lump sums at time of swap cancellation (see section II above). Thus, the guidance under both section II and section IV of the note are closely linked, and the proposed guidance for lump sums on swap cancellations and for lump sums on off-market swaps seems consistent.

### *All swaps, or swaps used for hedging?*

74. One could wonder whether the loan component should be recognised for non-hedging off-market swaps only, or should also be applicable to both hedging and non-hedging off-market swaps. In

addition, in case no loan would be recognized for hedging off-market swaps, a question would be what entries in the EDP correction line would be required.

75. As indicated above, the Regulation did not follow the approach of restricting the EDP correction line to hedging instruments. It would thus seem anomalous, at this stage, to use the hedging criteria. Moreover, any differentiation in EDP treatment would create inappropriate accounting incentives to swap low fixed interest rates debt with off-market swaps, rather than with par swaps.

76. Note that even assuming that no loan would be recorded for off-market hedging swaps, it would be clearly inappropriate for the lump sum at inception to enter the EDP correction line. By analogy to swap cancellation, the lump sum would instead have to enter the correction line in a manner spread over time – thus leading to a similar result as if a loan had been recognized.

### ***Other "standards" recommendations***

77. It is worth noting that some accounting standards explicitly recognize or plan to recognize loan component in off-market swaps. As an example, the US accounting standard setter for government (Government Accounting Standards Board) envisages issuing a pronouncement along those lines.

78. The GASB Preliminary view No. 26-4P *Accounting and financial reporting of derivatives* issued on April 28, 2006 indicated, in relation to off-market swaps: "*the up-front payment of the off-market swap is a borrowing that the government has committed to simultaneously upon entering into an at-the-money swap. As a loan, the liability associated with the up-front payment would be reported at its historical price. ... The liability is amortized over the life of the swap. ...The derivative should be reported separately from the companion instrument and measured at fair value.*"

79. Taking into accounts broadly favourable comments gathered on the Preliminary view, the GASB decided to go forwards on this issue when formulating its Exposure draft *on Accounting and Financial Reporting for Derivative instruments* in June 2007. Paragraphs 54-56 of the Exposure draft reads: "*a government enters into an interest rate swap that has terms that generate an up-front payment to the government. In this case, the government has two separate but unrelated transactions in one instrument. The companion instrument is a borrowing in the amount of the up-front payment*". Furthermore, the *Basis for conclusions* of the Exposure draft refers to off-market swaps as hybrid instruments and states: "*a government recognize(s) a liability for an up-front payment that it receives when it enters into an interest rate swap... the interest rate swap would be reported as a derivative instrument and the up-front payment would be considered a companion instrument that is reported as a liability*".

### ***Practical considerations***

80. Source data compilers might not be able to systematically identify and separate lump sums for off-market swaps from other swaps, in the balance sheet as well as in the cash flow statements. The partitioning of the instrument into a loan and a derivative might be difficult, if not impossible, to implement across all sectors in the financial accounts.

81. At the same time, government accountants might well have very good information on these activities. It would thus be proposed that although in concept a partitioning would be recommended across the accounts, in practice it would be tolerated that this recording might not be carried out across the accounts, except for the general government sector accounts and the counterpart sectors. The counterpart sector of the general government reporting would generally be the banking sector (although possibly non-residents).

82. It is recognized that consistent treatments across the financial accounts of different sectors would require specific attention. Consistency might be difficult to maintain if banks do not classify lump sums on off-market swaps as loans themselves. However, when drawing the financial accounts, the information coming from the different sectors (counterpart transactors) routinely differs – even when the basis of recording is strictly the same –, and financial accountants are accustomed to apply algorithms that aim at forcing one figure, and at allocating any differences on a different sector or instrument. Thus, the practical difficulties arising from the off-market swaps are neither new nor specific.

#### **IV.4. Guidance**

83. The conceptual guidance is to partition in the balance sheet off-market swaps into a loan component and a regular (at-the-money) swap component, and to record the lump sum on an off-market swap within loans AF.4, thus with an impact on the Maastricht debt when the lump sum is received by government. Lump sums at inception on off-market swaps should be classified as loans (F.4) under ESA 1995. Flexibility in implementation would be accepted within the system, except where one of the parties belongs to the general government sector.

84. The EDP correction line does not include the lump sum at inception on off-market swaps, but includes the stream of interest payments on off-market swaps corrected for the amortization over the life of the contract of the lump sum exchanged at inception.

#### **V. Some considerations on practical implementation**

85. A number of Member States have drawn Eurostat's attention to the fact that compilers might face difficulties to obtain the source data necessary for the implementation of this guidance. However, the EDP correction line is an artificial correction line that national institutes (or Treasuries on their behalf) must maintain in their database. National institutes generally only need limited information for these specific transactions (cancellations, off-market swaps): on the lump sum amount, on the date of transaction and on the maturity of the instruments. This information is then used to generate an amendment to the interest payments flows reported by the Treasury for the calculation of EDP correction line. However, the source data difficulties may also depend on the number of government units engaged in such operations.

86. For instance, as far as data availability on off-market swaps is concerned for the identification of the lump sum payment, as well as for the splitting of regular payments on a swap into loan and derivative components, the information for the EDP correction line would come from the debt managers (as it is coming now). To determine the loan component, it is deemed to be sufficient to



have information on the lump sum amount paid (or on the fixed rate and market rate) and the duration of the swap. Then a purely statistical imputation is to be made.

87. Finally, it may be that amounts at stake might not be material for the measurement of the government deficit and debt, in light of the required reporting burden. It is up to National institutes to choose the most efficient way on a cost/benefit basis to collect the necessary information.

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## Annex I

### Some accounting examples

The accounting example A shows the accounting entries under ESA 1995/EDP, using a template similar to EDP notification Table 3, implied for a regular 5-year swap. Observed flows are reported, including a total gain/loss on the contract (of 1).

The accounting example B examines the accounting entries in case a swap is cancelled in year 1.

The accounting example C examines the accounting entries in case of a 5-year off-market swap, with the simplifying assumption that no interest is recorded on borrowing.

The accounting example D examines the accounting entries in case of a 5-year off-market swap, but when interest on borrowing is also recorded (thus the lump sum is calculated using the present value of expected cash flows).

The accounting examples below generally assume a 5-year interest rate swap.

#### A. Regular swap (*reminder*)

The cash payments are done once a year and the net flow observable at the end of each year is shown in item 4.

		year 1	year 2	year 3	year 4	year 5	Σ over years
<b>B.9</b>	1	0	0	0	0	0	0
<b>EDP correction</b>	2	4	4	1	-4	-4	1
<b>EDP B.9</b>	1+2=3	4	4	1	-4	-4	1
<b>F.2</b>	4	4	4	1	-4	-4	1
<b>F.34</b>	5	-4	-4	-1	4	4	-1
<b>EDP correction</b>	2=6	4	4	1	-4	-4	1
<b>Change in debt</b>	-3+4+5+6=7	0	0	0	0	0	0

These payments are classified and also reported in ESA 1995 under F.34 (item 5). Under ESA 1995 these "streams of interest payments resulting from swaps" do not impact B.9 (item 1). But they enter the EDP correction (item 2) and thus impact EDP B.9 (item 3). The reconciliation of the EDP B.9 (item 3) and the change in debt (item 7), as reported in EDP Table 3, requires an entry in EDP correction line (item 6).

#### B. Lump sum payment on swap cancellation

A 5-year swap with the remaining life of 4 years is cancelled at the end of the first year and a lump-sum of 100 is received. The table neglects the recording during the first year. The swap has a value of 100 that reflects both payments made during the first year and holding gains/losses.

		year 2	year 3	year 4	year 5	Σ over years
<b>B.9</b>	1	0	0	0	0	0
<b>EDP correction</b>	2	0	25	25	25	100
<b>EDP B.9</b>	1+2=3	0	25	25	25	100
<b>F.2</b>	4	100	0	0	0	0
<b>F.34</b>	5	-100	0	0	0	0
<b>EDP correction</b>	6	0	25	25	25	100
<b>Change in debt</b>	-3+4+5+6=7	0	0	0	0	0

In ESA 1995 the lump-sum enters F.34 (item 5). No entries in cash are observed (item 4) because the swap has been cancelled.

At time of cancellation the lump sum does not enter the EDP correction line and has no impact on EDP B.9 (item 3). Instead, the lump sum is spread over 4 years (the remaining life of the swap) and impacts EDP B.9.

### C. Off-market swap (without interest)

A lump-sum of 100 is received at inception of the 5 year off-market swap.

The cash flows will comprise an element of amortisation of this lump sum as well as flows relating to a regular swap exposure, as in example A. In this example no amounts on accrued interest on the loan/debt are taken into account.

		inception	year 1	year 2	year 3	year 4	year 5	Σ over years
<b>B.9</b>	1	0	0	0	0	0	0	0
<b>EDP correction</b>	2	0	4	4	1	-4	-4	1
<b>EDP B.9</b>	1+2=3	0	4	4	1	-4	-4	1
<b>F.2</b>	4	100	-16	-16	-19	-24	-24	1
<b>F.34</b>	5	0	-4	-4	-1	4	4	-1
<b>EDP correction</b>	6	0	4	4	1	-4	-4	1
<b>Change in debt</b>	(-3)+4+5+6=7	100	-20	-20	-20	-20	-20	0

At inception the lump-sum payment is recorded as a loan F.4, thus impacting the Maastricht debt, and therefore does not enter the EDP correction line.

Thus the observed cash flows will be partitioned between the reimbursement of loan (imputed) and derivative (residual)(e.g. for year 1:  $-16 = -20 + 4$ ). Note that the flows reflected in item 5 (F.34) exactly relates to net payments on a regular swap. Therefore only these amounts enter the EDP correction line for swaps and have an impact on EDP B.9 (item 3).

### D. Off-market swap (with interest)

This example is similar to the example C., except of the assumption that interest is accrued on the loan.

		<b>inception</b>	<b>year 1</b>	<b>year 2</b>	<b>year 3</b>	<b>year 4</b>	<b>year 5</b>	<b>Σ over years</b>
<b>D.41</b>	1	0	-5	-4	-3	-2	-1	-15
<b>B.9</b>	2	0	-5	-4	-3	-2	-1	-15
<b>EDP correction</b>	3	0	4	4	1	-4	-4	1
<b>EDP B.9</b>	2+3=4	0	-1	0	-2	-6	-5	-14
<b>F.2</b>	5	100	-21	-20	-22	-26	-25	-14
<b>F.34</b>	6	0	-4	-4	-1	4	4	-1
<b>EDP correction</b>	7	0	4	4	1	-4	-4	1
<b>Change in debt</b>	(-4)+5+6+7=8	100	-20	-20	-20	-20	-20	

	<b>year 1</b>	<b>year 2</b>	<b>year 3</b>	<b>year 4</b>	<b>Year 5</b>
<b>F.2 related to interest</b>	-5	-4	-3	-2	-1
<b>F.2 related to reimbursement of a loan</b>	-20	-20	-20	-20	-20
<b>F.2 related to derivative</b>	4	4	1	-4	-4
<b>F.2 TOTAL</b>	-21	-20	-22	-26	-25

The loan at inception measures the present value of expected cash flows. If we had had the same cash flows as in example C, the original change in debt would have been smaller (by 15) and the amortisation would have been smaller as well.