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Recording of interest: treatment of premiums and discounts in the case of active trading on the secondary market

The calculation of the German central government interest expenditure based on the Capital cost model (CCM) was first presented at the EDPS WG in December 2017. However, while the methodology seems straightforward from an economic perspective, it is not in line with the second part of ESA 20.180 (revaluation), but applies a strict debtor approach. In order to support an enhanced discussion about economically sensible recording options compliant with ESA 2010, Eurostat proposed further input for the discussion with CCM as a starting point.

Against this background this short overview aims at highlighting the challenges of finding an appropriate ESA compatible recording of interest expenditure in the case of very active debt management activities on the secondary market, which do not have the character of borrowing or redemption but rather market smoothing (the outstanding amount of an issuance is rather stable, but sizeable selling and buying activities take place even intraday).

We start by describing the current calculation of central government interest expenditure in Germany as it is produced by the debt management agency as a new standard product and which has been the basis of the latest German national accounts recording. However, in case of premiums and discounts no revaluation effects are extracted, which may therefore - at least partially - not match with ESA provisions. On the other hand, an asymmetric recording of revaluation effects, particularly in the case of very sizeable debt management activities, does not match the ESA debtor principle and also opens scope for economically disadvantageous practices by increasing or decreasing secondary market activities targeting at shaping interest expenditure in ESA.

In a second step, we argue that ESA and MGDD interpretation offer at least two different readings, one of them treating secondary market transactions symmetrically. Given the ESA debtor principle we argue in favour of such a symmetrical treatment.

1. Institutional background in Germany

The German federal debt agency (Finanzagentur) is an extra-budgetary unit of federal government classified in S.13.¹ Finanzagentur issues various debt instruments on behalf of German (central) government. A broad range of original maturities intends to reconcile government financing needs with the market demand for bonds. In order to ensure high liquidity of the bonds, issuances, especially of instruments with higher maturities, are run in several tranches on the primary market, often over years. While newly issued bonds (first tranche of a series) are usually equipped with coupons close to prevailing market rates, subsequent taps of the same security (same ISIN) obviously carry the first tranche's coupon, which may be considerably remote from the current market rate. Therefore, in an environment of decreasing market interest rates, further tranches entail premiums on the debt instruments' face values (and discounts in times of increasing market interest rates).

Additionally, Finanzagentur is a very active player on the secondary market, repurchasing and reselling bonds in order to minimize yield differences between market places and to smooth intra-day yield volatility in order to minimize liquidity risks. To this end, important amounts of securities are traded (simultaneously) each day without major impact on the volume in circulation over time and even at the end of the day. However, towards the end of a bond's lifespan, Finanzagentur systematically decreases the volume in circulation by repurchasing more bonds than it sells. This reduces the refinancing volume at maturity.

2. The model of Finanzagentur to monitor interest costs

The current so-called capital cost model (CCM) of Finanzagentur is basically an accrual approach matching total cost and (net) cash paid over each instrument's lifespan. Whenever issuing or trading a bond, the difference between its face value and actual cash paid or received is considered to constitute (possibly negative) cost of borrowing. This cost of borrowing is spread over the (daily) remaining lifespan of the bond. In this way, CCM prevents the usual daily secondary market repurchases and re-sales from impacting the recorded cost of borrowing, except through realised arbitrage profits.

Thus, given an environment of decreasing interest rates, later issuances (e.g. in the context of additional tranches) tend to create premiums (received) that decrease the cost of borrowing compared to the coupons (as the interest conditions at the time of issuance have improved). Premiums and discounts in the context of debt management secondary market operations (while the outstanding amount remains rather constant) net out more or less, while the net repurchases towards the end of the bond's lifespan cause premiums (paid) that increase the cost of borrowing, in each case over the remaining maturity².

¹ Public debt management offices, even if they are separate institutional units, should be classified in the general government sector (MGDD 2016, I.7 Government debt management offices).

² The overall interest expenditure remains unchanged, if the operation is financed with new debt, which is subject to the lower market interest rate (compared to the coupon of the debt which is repaid).

In substance, CCM is a strict debtor approach to recording interest, where all cash paid and received is distributed (linearly) over the instrument's remaining lifespan.³ Therefore, no holding gains or losses are recorded. Its clear advantage is that CCM reflects the effective financial burden for the budget and creates neither an incentive to creatively shape the interest expenditure nor a disincentive to implement a sound debt management (that increases market liquidity by actively trading on secondary markets), because there is no option to strategically avoid or realise holding gains or losses which would then affect interest expenditure and the deficit/surplus. Therefore, CCM provides a clear and transparent tool for monitoring the interest costs of central government while avoiding any economically disadvantageous incentives.

On the other side, CCM creates an inconsistency in the system of national accounts when bonds are repurchased at a premium or discount. While a premium is recorded as future interest expenditure in CCM, there is no counterparty in national accounts to receive this income.⁴ Similarly, a discount at repurchase is considered to reduce future interest expenditure, without changing the interest income of the remaining creditors. This inconsistency may be considered as prevailing from a disaggregated point of view while from an aggregated perspective, obviously, bonds (even of the same ISIN) continue to exist.

3. Interest recording in ESA

ESA 20.179 distinguishes the debtor and the creditor approach to interest recording:

"[...] The debtor approach is from the perspective of the unit issuing the security and the creditor approach is from the perspective of the unit holding the security. From the debtor approach, the interest rate agreed on initiation is used throughout the life of the security. From the creditor approach, the current interest rate is used to value the interest between any two points in the life of the security."

ESA 20.180 commits to the debtor principle stating:

"Accrual interest is recorded according to the debtor approach, that is: based on the rate or yield prevailing at the time of creation of the financial instrument. Thus, interest expenditure to be recorded on fixed-rate debt securities does not vary over time in sympathy with market fluctuations, despite the fact that the market value of the securities fluctuates and that, accordingly, the opportunity costs of carrying this debt vary. In that way, interest expenditure avoids the volatility that the creditor approach entails. [...]"

The MGDD further clarifies that "ESA 2010 focuses on the financial burden, the cost of borrowing that was anticipated when the debtor raised funds through the issuance of financial instruments" (II.4.3.2.8).

Note that the reason indicated for choosing the debtor principle is that interest expenditure should not vary in sympathy with market fluctuations.

³ An exception applies to coupons paid, which are spread only over the preceding coupon period.

⁴ A similar problem arises while decommissioning nuclear waste. Even if the original energy supplier ceased its activity a notional entry, for the institutional sector, is recorded. See MGDD 2016, III.7.2.2.

ESA 20.182 also clarifies the case of issuances in various tranches which is considered a primary market activity:

"In many countries, government bonds or notes are issued in fungible tranches, over several years, with the same conditions concerning the nominal rate of interest. Because the market yield at time of further sale of tranches varies, each tranche is actually sold at a premium or at a discount. Thus, the rate of interest agreed on at time of issuing the bond is used for calculating interest, which will vary for each tranche"

This is in line with the understanding that the official registered volume has been increased.

ESA 20.180 treats repurchases of securities:

"The repurchase of securities on the market, at a premium or at a discount to the principal outstanding, does not lead to any entry in revenue or expenditure at time of purchase or later on. Instead, any repurchase premium or discount reflects the settlement, recorded in the financial accounts, of a holding gain or loss that accrued in the past and was recorded in the revaluation accounts at that time."

In contrast, ESA does not mention re-sales of securities and the treatment of their discounts and premiums. Therefore, it is necessary to conclude indirectly what treatment would be in line with the regulation. Two options may come up:

(A) Re-sales should be treated as a new creation of an instrument.

(B) Re-sales should be treated symmetrically to repurchases.

Both shall now be briefly explained.

3.1. *Re-sales should be treated as new issuances*

ESA 5.30 prescribes:

"When a department of an institutional unit purchases bonds issued by another department of the same institutional unit, the financial account of the unit does not record the transaction as the acquisition of a claim by one department on another. The transaction is recorded as a redemption of liabilities rather than an acquisition of consolidating assets."

In the same vein, ESA 20.130 states:

"The repurchase by a unit of a liability is recorded as redemption in liabilities and not as an acquisition of assets. Likewise, at a subsector or sector level, the purchase by a government unit of a liability issued by another unit of the subsector in question will be presented in the consolidated presentation, as redemption of liability by that subsector."

If ESA considers the repurchase of bonds as redemption, then it seems that their re-sale should be regarded as a new issuance.

On the other hand, this reading contradicts the ESA debtor principle, since multiple secondary market transactions, as executed by Finanzagentur, will detach interest expenditure from the "yield prevailing at the time of creation of the financial instrument" (20.180) towards the current market yield which the debtor principle aims at avoiding. This interpretation

therefore may create an incentive for governments to actively trade on secondary markets during times of decreasing interest rates while creating a disincentive to such activities during times of increasing interest rates. The recorded interest and the deficit can be significantly influenced, although the “real fiscal burden” remains constant.

A conceptual inconsistency may be seen in a case of two private investors acquiring exactly the same government bond on the secondary market, but with a different yield for the investor buying the bond from a government unit compared to the other one buying it from a third party, even if the price paid is identical.

3.2. *Re-sales should be treated symmetrically to repurchases*

Both re-sales and repurchases take place on secondary markets. As described above, they are usually carried out every day and, in most cases, do not impact significantly the volume of the bond in circulation. The ESA debtor principle requires that market fluctuations do not impact interest expenditure which, in turn, requires secondary market re-sales to trigger revaluations in the same way as for repurchases⁵. This would also be compatible to the MGDD provision “Secondary markets transactions, when existing, have no influence on the accrued interest to be recorded” (II.4.3.2.8). It might be argued that the issuer cannot, by definition, take part in secondary market transactions of its own instruments, but the understanding that government debt management agencies are performing secondary market activities seems to be common in practice. Primary market transactions follow a very specific procedure with specific provisions for the tendering/auction process as well as for choosing eligible participants of the auctions. This is valid for each separate tranche that is issued, but clearly different from any secondary market trading activity.

Also the MGDD clarification “ESA 2010 focuses on the financial burden, the cost of borrowing that was anticipated when the debtor raised funds through the issuance of financial instruments” (II.4.3.2.8) could be understood as excluding trading activity which, in fact, does not raise new funds.

The symmetrical treatment of re-sales and repurchases would not necessarily contradict the above cited ESA 5.30 which continues to read: “Such financial instruments are viewed as netted. Netting is to be avoided if it is necessary to keep the financial instrument on both the asset side and the liability side to follow the legal presentation.” The repurchased debt of the German federal government is not extinguished from the official federal debt register, but recorded separately as own securities on the asset side in the government accounts (“Vermögensrechnung”). Admittedly, it is arguable whether the mentioned exception applies to the case at hand. At first glance, it seems difficult to see any merits to follow the legal presentation. However, with a view to the issue at stake it may facilitate an ESA interpretation compatible with a symmetric treatment of trading activity.

⁵ Also Eurostat seems to consider the idea of symmetrical treatment of trading activity, in principle. Cf. EDPS WG July 2017 minutes: „On the other hand, Eurostat wondered whether some rules could be applied, for those secondary market operations, such as considering that the instrument resold is not a new issuance, but a resale, when it would come to determine the ESA 2010 nominal value concept.”

ESA 5.30 and 20.130 might also be reconciled with the proposed symmetrical treatment of secondary market transactions by being thought of referring only to final repurchases, i.e. to government units with the intention to hold until maturity the debt repurchased. This reading would then prevent later re-sales from being regarded as new issuances and therefore allow for a symmetrical treatment. Since in practice, a differentiation of the intention would be rather difficult, practical implementation might require an analysis of the usual intention which should then apply consistently to all observed transactions.

An alternative implementation of a debtor principle would be that neither secondary market repurchases nor re-sales trigger revaluations, which corresponds to the concept of CCM. Moreover, CCM represents the only approach, where decreasing market rates do not create the possibility to manipulate downwards interest expenditure by redeeming old bonds (paying a premium that is recorded as revaluation) and issuing new bonds at (lower) market rates, thereby again circumventing the ESA debtor principle. However, it seems difficult to reconcile CCM with the explicit requirement of ESA 20.180 (revaluation).

4. Weighing up the alternatives

The current interest recording for central government securities issued by Finanzagentur (CCM) constitutes a straightforward and intuitive concept, neutral in terms of incentives to trading on secondary markets and strictly following the debtor approach. However, it is in conflict with ESA 20.180 (revaluations). Nonetheless, it seems unclear how the “pure” ESA approach treats premiums and discounts of government bond re-sales, because neither MGDD nor ESA provide explicit guidance in this regard. At least there seems to be a conflict with the MGDD interpretation of the debtor principle (as well as with economic substance) if the rate prevailing at time the funds were raised on the market could be changed by trading activity (i.e. simultaneously repurchasing and re-selling the instrument). Given the fact that there is no obvious stance of ESA on the matter of re-sales, we consider it strongly advisable to treat secondary market repurchases and re-sales symmetrically due to the economic substance and the otherwise induced incentives or disincentives to undertake secondary market trading.

We invite all MS to share their thoughts on ESA compatible treatments of government bond re-sales in view of the above arguments.