

Split Ownership of Natural Resource Assets

Issue

The WSTT guidance note (WS.6) on the *Accounting for the Economic Ownership and Depletion of Natural Resources* has been prepared by the WSTT, presented to the AEG for approval to proceed to global consultation, submitted for global consultation and approved by the AEG.

Unfortunately, this Guidance note was not reviewed by GFS participants, notably Eurostat GFS, who joined the WSTT (environmental stream) only in the Spring of 2021. The Eurostat GFS and the GFS community more broadly has asked the AEG to consider feedback from the GFS community given the implication of the current decision on key GFS aggregates and balances, in particular government expense in the form of capital transfers and the resultant net operating balance (net saving and net capital transfers, B.101).

The issue of the split ownership of natural resource assets has gained further importance as it is not only being considered in guidance note WS.6 but is also being proposed in the guidance notes on accounting for biological resources (WS.8) and treatment of renewable energy resources (WS.11).

The bulk of the rest of this paper consists of excerpts from a paper presented by Eurostat GFS in Eurostat's Excessive Deficit Procedures Statistics Working Group (EDPS WG) meeting of December 2021, with some additions based on Eurostat GFS further comments made to the WSTT in Spring 2022 (with respect to biological resources) although many of the positions given as those of Eurostat GFS are held by others in the GFS community.

Summary of the guidance

The Guidance note proposes splitting sub-soil assets under lease, between the owner and the extractor.

To justify this, it starts with the notion that the SNA recommends, as a convention, that the sub-soil asset under lease is kept in the balance sheet of the legal owner (e.g. government) despite the fact that there is, according to the GN authors, shared economic ownership. They argue that licences to extract natural resources *de facto* lead to sharing of resource rent and suggest to split the sub-soil asset accordingly.

The guidance note points to the fact that depletion in sub-soil assets is currently not a cost of production, while it probably should be, and proposes to enter depletion in the core account, instead of in the other changes in volume accounts. The splitting approach can help in this, to the extent that it is easier to justify entering depletion in the core account of the extractor if the latter has part of the asset.

The guidance note rightly promotes net concepts (net income rather than gross income, net domestic product rather than GDP, etc.).

Summary of the procedure to date

A first (negative) Eurostat GFS analysis was circulated to the EDPS WG in August 2021 (after the Guidance was posted for Global consultation) together with an EU questionnaire. Nine GFS

correspondents filled the Eurostat questionnaire: eight supporting Eurostat's view (strongly, or somewhat, opposing the Guidance note), one somewhat supporting the split in assets.

The global consultation supported however the split of assets by a two to one majority (on 40 votes). Such a gap in views may reflect a difference in views between GFS and national accountants, underlining the fact that perhaps the GFS community should have been consulted more consistently (given that the sub-soil assets are often government assets). This gap may also reflect the fact that the Guidance note was not very balanced, in presenting all aspects of problems as it should have: presenting all pros and cons, discussing other less radical options, etc. This view perhaps found some support at the occasion of the gathering of the arguments of those opposing the Guidance note's proposal: many key arguments appeared missing, which may indicate that the consulted parties were not fully briefed (the own contribution of Eurostat GFS to the Global consultation, with its long list of opposing arguments against the guidance note's proposal – see below –, had apparently been overlooked/lost by the compiler of the responses due to a technical problem).

Another reason for the gap may be due to the fact that the EDPS WG consultation did not have a large enough coverage, however.

In the November 2021 AEG meeting, Eurostat expressed some concern about this (mostly the fact that the GFS community was hardly involved on what is essentially a government asset) and obtained support from three other speakers that expressed concerns, including on practical implementation grounds.

Summary of the views against the proposal of the Guidance note

Eurostat GFS is not in favour of splitting sub-soil assets at this stage because there is insufficient reason to depart from the general SNA approach of not splitting assets in general although exceptions exist (see below). Splitting assets between owners can be done in joint ventures, for instance when an institutional unit for some reason is not recognised. The special provisions, out of practical reasons, are also applicable, according to a Eurostat Decision, to the so called EPC (Energy Performance Contract) assets, which are recorded on the balance sheet of the contractual party that bears the majority of risks and rewards associated with the use of these assets. Also, assets may, in many/most jurisdictions, be legally jointly owned by various owners (often following inheritances). In all these cases, however, the percentages to apply for (potentially) splitting the asset in question are very clear (aside from this, splitting assets between categories within a same owner is a wholly different subject and is a reasonably common practice in the SNA/ESA: land/fixed asset, off-market swaps, emission trading schemes, etc.).

Extending the splitting of assets beyond this seems to be in contradiction with the basic principle of what an asset is and what economic ownership of an asset is, as described in the definition of ownership/assets (chapter 3 and 10 of SNA). Ownership is always referred to in singular terms (see for example “the institutional unit” in 2008 SNA paragraph 3.26). Furthermore, the economic benefit of an asset is linked to the ability to dispose this asset (see ESA 2010 7.16). It is not clear how such a decision to dispose/sell could be taken for a sub-soil asset that is co-owned.

Eurostat GFS thinks that the information and data available for the proposed split of sub-soil assets upon lease is highly uncertain in this case, because no observable price exists to do so, and thus this split is based on statistical modelling/hypotheses that can be challenged, which makes it both

conceptually questionable and in practice hard to defend and/or risking introducing heterogeneity of recording across countries.

The part of the resource rent that the guidance note suggests is captured by the extractor can indeed be interpreted as being only a mismeasurement of the costs to be considered or of the total return requested by the market on these (risky) extracting activities or as resulting from subsequent price changes not expected at inception (e.g. in case of fixed royalties)¹.

In this context, Eurostat GFS does not agree with a split recording on the sole pretext that the statistician has identified a resource rent higher than the agreed set of royalties (present value). While recording a transfer is plausible for extraction permits given for free or at obviously low value compared to the resource rent, the reverse logic should apply in case of arm's length transactions such as for sales of extraction permits at auction: in that case, the auction price tells what is the resource rent (as well as the appropriate discount rate to use). It appears fundamental to the integrity of Eurostat GFS and to the wider national accounts that statisticians follow the observed market valuations for this issue (and for others) and do not start presuming to know true values and start imputing capital transfers all over the place; at the same time, appropriate guidance should be provided for contracts granted below market prices. Departing from observed transaction values in a situation where governments are not intending to provide benefits seems to run counter to core principles of the SNA².

In addition, the presumption that lessees of extracting contracts are able to capture part of the resource rent should be better justified, notably given that one would expect market over-performance by these lessees. In particular, one can observe that the market return of oil companies has been rather low over the past 15 years (with their share prices below peak levels of 15 years ago), and notably lower than average market. This seems at odd with the hypothesis of the resource rent being partly captured by the extractor.

To Eurostat GFS, an extraction contract has zero market value at inception at least when auctioned (that is: in an arm's length transaction), like a transferrable lease or a swap (with new assets AN.222 or AF.7 created at inception for 0), and only gains market value later on (if transferable/off-settable in the current SNA). It is therefore, difficult to justify the recognising of a capital transfer to match the suggested sub-soil asset transfer at inception, as proposed by the guidance note, because there is no 'gift' to the extractor.

¹ Or indeed linked to measurement issues resulting from sur-taxes on companies involved in the extraction of natural resources being classified as taxes rather than resource rent. A GFS interpretation issued by Eurostat on 29 March 2022 is attempting to resolve this particular issue, by prescribing that sur-taxes and assimilated raised on extracting industries should be classified as rent (D.45).

https://ec.europa.eu/eurostat/documents/1015035/2041357/GFS_interpretation_delineation_between_resource_taxes_and_rent_2022_03_29.pdf/e28c8d69-6612-50cd-4143-6b619f447d89?t=1648577002072

² For example, 2008 SNA paragraph 1.8: "The prices at which goods and services are exchanged in transactions between buyers and sellers on markets provide the information needed for valuing, directly or indirectly, all the items in the accounts."

When the extraction contract is not at arm's length, i.e., on a market within the meaning of the SNA, which the GN takes it as a rather frequent phenomenon, then a capital transfer might indeed be applicable. However, the counterpart of this capital transfer could be a payable rather than a transaction in subsoil assets: the payable is then unwound over time by imputing additional rent, so to reach a suitable rent/royalty rate. This scenario would certainly require further exploration and guidance, but the concerns raised in this note are principally in relation to the proposed split-asset treatment in the more common scenario where government sells a lease to a company permitting the extraction of a natural resource,

Saying that the sub-soil is split in proportion of the royalties paid or payable compared to the total resource rent (calculated by the statistician) creates other difficulties and is debatable. It is not to say that the extractor is not exposed to risks and rewards (although it can be disputed if this is on the asset or on the activity of extraction). One should however notice (a point overlooked by the GN) that the net worth of the extractor already adequately reflects this exposure when the lease is transferrable, because an AN.22 is created to capture the net market value of the lease at any point in time.

Thus, in order to reflect the split in risks and rewards existing in all/most extraction contracts (i.e. thus with fixed royalties), Eurostat GFS thinks that this could be done by simply extending the AN.22 recording to all such extraction leases, even those non-transferrable. This would imply explicitly recognising (perhaps for natural resources only) a new type of lease of the AN.222 type (that is: despite the fact that the lease is not transferable); thus, adapting the SNA within existing SNA broad rules; this reasonable option is not at all explored in the guidance note.

It can be noted that IFRS (and IPSAS) now prescribes to record, in the accounts of the lessee, the right of use (as an asset) aside the payable due on the lease (as a liability), so that the lease net value now features in the IFRS net assets of the lessee – to some extent similarly to the AN.222 recording done in the SNA/ESA (for transferrable leases). Aside from the fact that IFRS does not treat symmetrically the lease in the account of the lessor (a luxury that ESA/SNA cannot afford), the analogy is however not perfect: IFRS grosses the asset and the liability, while AN.222 nets it; the AN.222 is recognized only for transferrable leases (which could be changed, as proposed here); and the statistical nature of the IFRS right of use would need to be determined. Finally, the AN.222 belongs to the non-financial assets, but one may wonder if it should not be seen as a financial instrument instead, as a type of AF.7: allowing the asset currently in AN.222 to be a liability of the lessor, and also allowing it to turn negative.

Also, the guidance note eschews the problem that the sub-soil asset in the accounts of the extractor becomes negative when oil prices become very low (because extraction cannot be stopped, only slowed). This negative asset implies that we are more in the AN.222 or AF.7 worlds than in subsoil assets categories. This also reflects that the operator is not exposed to the risks and rewards on the asset, but residually, on the lease.

An important aspect to note is that a split of asset approach is now proposed in drafts for two or three other topics of the environmental task team: on some cases of provisions for environmental damages (initial draft); on biological assets; and on a newly proposed class of renewable energy assets. Thus, the split asset approach was not only designed to address a problem identified related to exhaustible resources, but to propose a new accounting where risks and rewards are shared.

Further to this, discussing the draft Guidance Note on biological assets on various occasions end 2021 and beginning 2022 could suggest that the split asset proposal may not have been correctly explained/ understood. This is because the authors tended to mix under the topic “permits” two different things: (1) the prepayments of rent (as for mobile phone spectra); and (2) the belief (questioned above) that the (imagined) “resource rent” can be captured by the extractor (who is deemed to pay less than the full fees). Issue (1) can have implications on the March 2017 Eurostat Guidance note³ on mobile phone and other licences (and possibly ETS). Issue (2), aside from being questionable, can in practice be neutralised by simply saying that when permits are auctioned, no capture is deemed to exist.

Alternative Proposed Recording

As noted, Eurostat GFS requests that the WS.6 Guidance note (and any others proposing the split asset treatment) are updated to both reflect the concerns raised in this note and to include an additional proposal to record the extractor’s “share” of resource rent as a “right to use” permit rather than allocating the natural resource to the sectoral balance sheet of the extractor.

Under this alternative recording option, the allocation of natural resources, including the full costs of depletion, lie with the legal owner (i.e., government). However, the extractor recognizes a “right to use” permit which has zero value at the time when the government leases the natural resource for extraction (as the market value of the lease is assessed to be the NPV of the future stream of royalties), unless the transaction is not at arm’s length, but which may increase in value through revaluation in line with difference between the expected net returns resulting from the commercial exploitation of the natural resources (at a point in time) and the NPV of the stream of royalties. These revaluations originate either from higher selling prices than anticipated at time of contract, or by lower costs than anticipated.

This alternative recording can be seen as an improvement on example C in the Guidance note, which does not recognize anything on the balance sheet of the extractor, even in those cases where the expected returns from commercial exploitation of the natural resources are significantly greater than future stream of payments to government.

The below example, provide an overview of what the accounts might look like under the alternative proposed recording of the case where the government auctions the lease for extraction of natural resources. The example uses a similar format and scenario to that described in the Guidance note. Namely, that government leases a natural resource asset for a future stream of resource rent (royalties) due to the government of 500, but where the value of the natural resource (based on expected net returns from commercial exploitation) were estimated (by statisticians) prior to the issuance of the lease to be 750. The issuance of the lease leads to a revaluation of the value of the natural resources, and receipt by the extractor of a “right to use” permit asset which initially has zero value and subsequently changes value through revaluation.

Note that this example assumes a treatment of the “right to use” permit as a nonfinancial asset (extension of current AN.222) and not as a financial asset (of type F.7).

³ <https://ec.europa.eu/eurostat/documents/1015035/7959867/Mobile-phone-licences-exploration-rights-and-other-licences.pdf>

Example

Alternative recording when government auctions extraction license (which permits extraction to exhaustion).

Year 1: In the opening balance sheet the government had been recording a natural resources value of 750, but this is incorrect valuation is revalued to 500 as a result of the observed auction value (market value). The natural resource, which is allocated to the legal owner (government), subsequently reduces as a result of 30 in depletion during the first year of extraction. The extractor recognizes a “right to use” permit which has zero value during this year as no price increases are observed.

Accounts for the extractor of natural resources in year 1

Production and generation of income account					
Compensation of employees	35	Output	100		
Consumption of fixed capital	20				
Depletion/degradation of natural resources	30				
Net operating surplus	15				
Distribution of income account					
Rent on natural resources	30	Net operating surplus	15		
Depletion/degradation borne by government	-30				
Net saving	15				
Capital account					
Net acquisition of nonfinancial assets	0	Net saving	15		
Consumption of fixed capital	-20	Net capital transfers (receivable less payable)	0		
Depletion/degradation of natural resources	0				
Net lending/net borrowing	35	Changes in NW due to saving and CT	15		
Financial account					
Cash	35	Net lending/net borrowing	35		
Other changes in the volume of assets account					
Depletion/degradation of natural resources	0	Changes in NW due to other changes in assets	0		
Permits to use natural resources	0				
Revaluation account					
Permits to use natural resources	0	Changes in NW due to revaluation	0		
Balance sheet					
Cash	0	35	Net worth	200	215
Fixed nonfinancial assets	200	180			
Natural resources	0	0			
Permits to use natural resources	0	0			
Total	200	215	Total	200	215

Accounts for the government in year 1

Production and generation of income account

Compensation of employees	0		Output	0
Consumption of fixed capital	0			
Net operating surplus	0			

Distribution of income account

			Net operating surplus	0
			Rent on natural resources	30
Net saving	0		Depletion/degradation borne by government	-30

Capital account

Net acquisition of nonfinancial assets	0		Net saving	0
Consumption of fixed capital	0		Net capital transfers (receivable less payable)	0
Depletion/degradation of natural resources	-30			
Net lending/net borrowing	30		Changes in NW due to saving and CT	0

Financial account

Cash	30		Net lending/net borrowing	30
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Other changes in the volume of assets account

Depletion/degradation of natural resources	0		Changes in NW due to other changes in assets	0
Permits to use natural resources	0			

Revaluation account

Natural resources	-250		Changes in NW due to revaluation	-250
Permits to use natural resources	0			

Balance sheet

Cash	0	30		Net worth	750	500
Fixed nonfinancial assets	0	0				
Natural resources	750	470				
Permits to use natural resources	0	0				
Total	750	500		Total	750	500

Year 2: In the second year prices increase by 15% and so the output of the extractor increases by 15%. Consequently (i) the depletion increases, and (ii) the value of the “right to use” permit increases as the revised expected net returns resulting from the commercial exploitation of the natural resources exceed the NPV of the stream of royalties. In the government accounts the impact remains as a result of the rent (royalties) decreasing the natural resource asset stock value. However, the overall balance sheet value of the economy as a result of the price increase is reflected in the increased value of the permit held by the extractor.

Accounts for the extractor of natural resources in year 2

Production and generation of income account			
Compensation of employees	35	Output	115
Consumption of fixed capital	20		
Depletion/degradation of natural resources	45		
Net operating surplus	15		

Distribution of income account			
Rent on natural resources	30	Net operating surplus	15
Depletion/degradation borne by government*	-30		
Net saving	15		

Capital account			
Net acquisition of nonfinancial assets	0	Net saving	15
Consumption of fixed capital	-20	Net capital transfers (receivable less payable)	0
Depletion/degradation borne by permits*	-15		
Net lending/net borrowing	50	Changes in NW due to saving and CT	15

Financial account			
Cash	50	Net lending/net borrowing	50

Other changes in the volume of assets account			
Depletion/degradation of natural resources	0	Changes in NW due to other changes in assets	0
Permits to use natural resources	0		

Revaluation account			
Permits to use natural resources*	235	Changes in NW due to revaluation	235

Balance sheet					
Cash	35	85	Net worth	215	465
Fixed nonfinancial assets	180	160			
Natural resources	0	0			
Permits to use natural resources	0	220			
Total	215	465	Total	215	465

Accounts for the government in year 2

Production and generation of income account		
Compensation of employees	0	Output
Consumption of fixed capital	0	0
Net operating surplus	0	

Distribution of income account		
		Net operating surplus
		0
		Rent on natural resources
		30
Net saving	0	Depletion/degradation borne by government
		-30

Capital account		
Net acquisition of nonfinancial assets	0	Net saving
Consumption of fixed capital	0	0
Depletion/degradation of natural resources*	-30	Net capital transfers (receivable less payable)
		0
Net lending/net borrowing	30	Changes in NW due to saving and CT
		0

Financial account		
Cash	0	Net lending/net borrowing
		0

Other changes in the volume of assets account		
Depletion/degradation of natural resources	0	Changes in NW due to other changes in assets
Permits to use natural resources	0	0

Revaluation account		
Natural resources*	0	Changes in NW due to revaluation
Permits to use natural resources	0	0

Balance sheet				
Cash	30	60	Net worth	500
Fixed nonfinancial assets	0	0		500
Natural resources	470	440		
Permits to use natural resources	0	0		
Total	500	500	Total	500
				500

* In the Year 2 example the impacts of the higher depletion value (due to the price increase) are shown as being split between the government natural resource assets (30) and the extractors permit (15). An alternative recording might be to show the total depletion (45) in the government accounts but with part of this offset by an upward revaluation of the natural resource asset (15).