The net operating balances: Variants, emerging numbers and history

KEY FINDINGS

Operating budgetary balances (OBBs) are calculated and published annually by the European Commission as an attempt to document the differences between a Member State’s financial contribution to and its allocated expenditure from the EU budget. OBBs have become a highly politicised concept, with substantial shortcomings.

Calculating Operating budgetary balances is purely an accounting exercise. This is most convincingly demonstrated by the zero-sum assumption inherent in the Operating budgetary balance concept, as a positive OBB of one country must necessarily be offset by a negative OBB of equal size by another Member State. Evidently, such a perspective stands in sharp contrast with the idea of an EU budget that is not primarily meant as a system of fiscal redistribution, but rather as a means to generate European added value.

In addition to the criticisms on the interpretation of Operating budgetary balances, the approach also has serious inherent limitations:

− Several expenditure positions (e.g. development aid to third countries) are excluded, despite its impact on the extent to which Member States benefit from EU membership.
− Member States’ OBB figures vary significantly over time and convey a different picture when reported in relative or absolute terms. This makes OBB figures an attractive tool for populist statements.
− As some EU budgetary items (e.g. administrative expenditure) cannot be assigned to single countries objectively, rules are necessary for their (non-)consideration in OBB calculations. This arbitrariness highlights that there is no one true methodology for calculating OBBs.
− Calculating OBBs separately for each EU policy instrument demonstrates how national (net) payment profiles vary across said instruments. As such, the Member States do not profit equally from the advantages of EU membership. However, OBB numbers are dependent on which of these instruments are taken into account.

It is therefore crucial to only take Operating budgetary balance figures for what they truly are – mere accounting indicators, and not a measurement of costs and benefits derived from the EU budget (and even less so from EU membership).
Calculating operating budgetary balances: An annual exercise with strong caveats

The European Commission regularly calculates operating budgetary balances (OBBs) for all EU Member States, as requested by them. **The Commission publishes these data, clearly stressing the caveats involved in this exercise:**

“It is important to point out, however, that estimating operating budgetary balances is merely an accounting exercise that shows certain financial costs and benefits derived from the EU by each Member State. Furthermore, this accounting allocation is non-exhaustive and gives no indication of the many other benefits arising from EU policies, such as those relating to the single market and economic integration, not to mention political stability and security.”

These arguments are summarised and critically discussed alongside other similar lines of criticism in two accompanying briefings, which focus on budget-related (see Briefing on “Why net operating balances are a distorted indicator of a Member State’s benefit from the EU budget”) and non-budgetary aspects (see Briefing on “The benefits of EU membership are not measured by net operating balances”). While these briefings detail why OBBs are a highly misleading measure for how beneficial the EU budget (not to mention EU membership) is, this briefing in particular concentrates on the concept and different variants of these balances and demonstrates the misleading nature resulting from its arithmetical construction.

Operating budgetary balances (OBB) and budgetary imbalances

**Due to its severe conceptual limitations, the European Commission was long opposed to the official publication of Operating budgetary balances.** It was only after the 1999 Berlin European Council re-emphasised the potential existence of imbalances between net contributors and recipients (see Box 1) that the Commission started to publish them annually. These imbalances had been a policy issue since at least the Fontainebleau European Council in 1984, and the introduction of the UK rebate a year later (see Appendix: The history of rebates).

These “budgetary imbalances” are measured by comparing each Member State’s contributions to the common budget against the EU expenditure allocated to the respective country.

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**Box 1. 1999 Berlin European Council**

The Berlin European Council’s view on budgetary imbalances stressed the limits of OBBs as mere accounting figures:

“While it is recognised that the full benefits of Union membership cannot be measured solely in budgetary terms, the Fontainebleau European Council acknowledged the possible existence of budgetary imbalances. These should, to the extent possible, be resolved by means of expenditure policy, although provision is made for the possibility of a correction for Member States sustaining a budgetary burden which is excessive in relation to their relative prosperity.”


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The formula: Allocated expenditure and weighted contributions

Operating budgetary balance (OBB) calculations must acknowledge that the EU budget is not entirely allocated to the Member States. In particular, administrative expenditure, which is used to finance EU institutions, cannot be objectively assigned to certain countries and is therefore excluded from the calculations. In fact, national OBBs are calculated according to the formula shown in Box 2. Roughly speaking, **this accounting figure equals the difference between the operating expenditure allocated to each country and the weighted national contributions** (excluding traditional own resources).
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The weighting procedure described in Box 2 (Part C) is applied to assure that once averaged over all of the EU countries, Operating budgetary balances (OBB) will equal exactly zero. This underlines the nature of OBBs as pure accounting figures: the negative value of one country must necessarily be offset by a positive number of equal size from another country. This unmasks the underlying concept of Operating budgetary balances as zero-sum calculations – a perspective that stands in sharp contrast with the idea of an EU budget that is not primarily meant as a system of fiscal redistribution, but rather as a means to generate European added value.

Box 2. How to calculate a Member State’s OBB:

\[
\text{Operating budgetary balance} = \frac{\text{Allocated expenditure (excl. admin. expend.)}}{\text{Weighted national contribution}} - \frac{\text{Total national contributions}}{\text{Total allocated expenditure} - \text{Administrative expenditure}}
\]

\[
OBB_i = \frac{(TAE_i - ADM_i)}{TNC_i} - \left(\frac{TAE_{EU} - ADM_{EU}}{TNC_{EU}}\right)
\]

As indicated in all three rows, the formula can be split into two separate parts. Part A captures all of the inflows of EU finances into 28 Member States, excluding administrative expenditure. This part equals the total amount actually allocated to Member States through one of the EU policy instruments (e.g. Cohesion, Common Agricultural Policy, Horizon 2020). Part C represents the weighted national contributions.

More precisely, \( TAE_i \) equals total allocated expenditure, \( ADM_i \) is administrative expenditure, and \( TNC_i \) are total national contributions of Member State \( i \). The weighting in C has the function of fictitiously scaling the actual national contributions up or down to a level that equals the sum of all allocated expenditures.

The formula in action

To illustrate how OBBs are calculated in practice, see Table 1. Calculations are based on 2018 numbers for Germany, France and Italy (the largest net contributors in 2017 in absolute numbers); and Romania, Greece and Poland (the largest net recipients).

Column one lists the aggregate sums for all 28 EU Member States. Comparing total operating expenditure (first row) with total national contributions (second row) reveals a small discrepancy. This is because not all national contributions are allocated to the Member States, as explained above. In order to balance out all of the available and allocated funds in accounting terms, national contributions are weighted slightly downward (third row). Depending on how large total allocated expenditure (\( TAE \)) and total national contributions (\( TNC \)) are in a given year, the weighting will either decrease or increase each Member State’s contributions fictitiously. As a result, OBBs for the EU as a whole average zero (i.e. \( A - C = 0 \)).

Table 1. Operating budgetary balances (OBB): Methodology & calculation

<table>
<thead>
<tr>
<th>2018 data (€bill.)</th>
<th>EU28</th>
<th>DE</th>
<th>FR</th>
<th>IT</th>
<th>RO</th>
<th>EL</th>
<th>PL</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) Allocated expenditure excl. admin. expenditure ( TAE_i - ADM_i )</td>
<td>121.9</td>
<td>11.8</td>
<td>14.3</td>
<td>10.1</td>
<td>4.8</td>
<td>4.8</td>
<td>16.3</td>
</tr>
<tr>
<td>(B) Total national contribution ( TNC_i )</td>
<td>122.1</td>
<td>25.3</td>
<td>20.6</td>
<td>15.2</td>
<td>1.7</td>
<td>1.5</td>
<td>4.0</td>
</tr>
<tr>
<td>(C) Weighted national contributions</td>
<td>121.9</td>
<td>25.2</td>
<td>20.5</td>
<td>15.2</td>
<td>1.7</td>
<td>1.5</td>
<td>4.0</td>
</tr>
<tr>
<td>Net operation balance ( A - C )</td>
<td>0.0</td>
<td>-13.4</td>
<td>-6.2</td>
<td>-5.1</td>
<td>3.2</td>
<td>3.4</td>
<td>12.3</td>
</tr>
<tr>
<td>Net operating balance (%GNI)</td>
<td>0.00%</td>
<td>-0.39%</td>
<td>-0.26%</td>
<td>-0.29%</td>
<td>1.61%</td>
<td>1.83%</td>
<td>2.59%</td>
</tr>
</tbody>
</table>

The weighting procedure in detail

The weighting procedure in detail summarises the weighting procedure for national contributions within the financing and expenditure structure of the EU budget. The single spending and revenue categories which enter the calculations for national OBB are TAE and TNC. These figures will naturally differ from each other to a certain degree, in such that national contributions are downward (or upward) weighted in order to achieve a zero Operating budgetary balance (OBB) on average. The remaining cost and revenue categories depicted in Figure 1 are entirely excluded from the OBB perspective.

Figure 1. Operating budgetary balances: The weighting procedure

Source: Authors’ based on ibid.

The awkward consequences of the formula’s arithmetic

The weighting procedure has consequences that expose Operating Budgetary Balances (OBB) as highly misleading indicators for a comprehensive assessment of the EU budget’s contribution to the Member States. This distortive property of the OBB formula is demonstrated in Figure 2, which shows the effect of two illustrative scenarios on Member States’ net balance position.

In Scenario 1, the share of traditional own resources (TOR) in the EU budget is significantly larger than the actual share of 15% to 20%. Therefore, national contributions account for a significantly smaller share of the overall budget. Intuitively, this should make all Member States net recipients, as external money (e.g. generated by high customs duties) can be used to fund EU projects. However, contrary to this logic, such a scenario would not have any effect on OBBs, or whether a Member State is a net contributor or net recipient, as the weighting procedure described in Figure 1 artificially stretches national contributions to match allocated expenditure.

Alternatively, Scenario 2 considers a situation in which expenditure for third parties – in the form of development aid or pre-accession aid to potential future EU members – is increased, whereas spending on the Member States is reduced by 50%. A natural expectation would be that all of the countries become net contributors, as this type of spending only has a direct budgetary effect for countries outside of the EU. However, the ordering of net recipients and net contributors is unchanged in such a scenario. The only effect on OBBs would be a proportional decrease, as Member States’ national contributions are weighted downward artificially to match the lower allocated expenditure.
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Operating budgetary balance results vary with assumptions: Examples and variants

Variation over time

An unaddressed crucial aspect of the Operating budgetary balance (OBB) concept is time: the figures published regularly by the European Commission are backwards-looking and therefore based on real numbers. However, during the actual budgetary negotiations, Member States are left to rely on estimates of national inflows and outflows to calculate the net balances. Naturally, such estimates will deviate from realised numbers, which limits their function of negotiating *ex ante* correction mechanisms to offset expected imbalances. This issue is exemplary of a ubiquitous challenge; to resist the desire to over-interpret national OBBs and to only take them as they are – mere accounting indicators and not measures of national costs, benefits or even solidarity.

The calculation method of national Operating budgetary balance (OBB)s is anything but straightforward and, to some extent, disputed among the Member States. As an artificial indicator of national operating net balances, there is no one true variant of an Operating budgetary balance, and Member States tend to favour an approach which presents their national contributions in a more favourable light. To illustrate the degree of arbitrariness, different variants of all Member States’ OBBs will be presented and discussed.

In a first step, Figure 3 depicts each Member State’s OBB in 2017 and 2018 respectively, ranked according to the countries’ absolute OBB in 2017 from highest to lowest. Most importantly, the figure shows how time-variable Operating budgetary balances are, even in the span of two years. This variability leads inter alia to a different ranking of Member States, especially for net recipients: whereas Hungary was only the fourth-largest net recipient of EU funds in 2017, it exhibited the second highest OBB figure among all Member States a mere year later. Such yearly changes can be due to EU-funded projects being executed in one year and not another, and illustrate the difficulty of estimating future OBB figures.

These mechanics of the Operating budgetary balance (OBB) approach illustrate the concept’s inherent limitations, independent of the criticism regarding the (incorrect) interpretations of OBBs and the EU benefits (and costs) they (do not) capture. Similarly, it should become clear that terms like ‘net beneficiaries’ or ‘contributors’ are highly problematic when used in the context of OBBs, as even net contributors to the EU budget are arguably also beneficiaries in a broader sense.

**Figure 2. Consequences of the weighting procedure: Two fictitious scenarios**

Source: Authors’ calculations based on *ibid.*

[Image of Figure 2 showing two fictitious scenarios for net operating balances]
Figure 3. Operating budgetary balances (OBB) (€mill., 2017 and 2018)

Source: Authors’ calculations based on ibid.

Absolute versus relative perspective

An additional aspect concerns outlook: depending on the perspective adopted – looking at Operating budgetary balances in absolute numbers, or relative to gross national income (GNI) –, the conclusions can change quite drastically. Figure 4 ranks all Member States according to their absolute OBB figure in 2017 as before, but presents the OBBs relative to GNI. Not only does the ranking change in comparison to Figure 3 when looking at relative OBB, but the size of net budgetary balances is also affected: whereas EU funds, which net recipient countries receive in net terms, make up a substantial part of their GNI, these figures are much smaller for net contributors in the OBB context. Therefore, the perspective adopted impacts the overall image greatly. For example, from the accounting perspective, Spain receives more EU funding than Latvia in absolute terms, but ‘ranks’ higher when considering the relative size of net contributions.

The GNI approach helps put the magnitudes of Operating budgetary balances (OBB) into perspective. For Member States with total government-spending-to-GDP ratios between 40% and 50%, the size of the net balance is small by comparison. Hence, even if net payers take OBBs as a meaningful indicator, the message is that such a ‘burden’ is in reality hardly a massive financial challenge.

Figure 4. Operating budgetary balances (%GNI, 2018)

Source: Authors’ calculations based on ibid.
Including/excluding administrative expenditure and traditional own resources

Figure 5 provides an impression of how OBBS look if two alternative calculation methods are applied. The blue bars show national figures for 2018. In yellow, the effect of including administrative expenditure is depicted. Going back to the OBB formula (see Box 2), this means to erase $ADM_I$ and $ADM_{EU}$ from the equation. As can be seen in the figure, this adjustment predominantly affects OBB figures from Luxembourg and Belgium. Intuitively, this is logical as these countries host various EU institutions. As a result, including the administrative expenditure of these institutions in the calculations improves the Operating budgetary balance position of both countries, and even turns them into net recipients of EU money from an accounting perspective.

As a second alternative, the red bars depict national Operating budgetary balances when including TOR in the calculations. This implies an increase in $TNC_I$ and $TNC_{EU}$ (see Box 2) relative to the size of TOR that accrue in each country. As TOR are mostly due to the common EU-wide customs duties, these previously excluded contributions to the EU budget predominantly occur in the Member States where most non-EU exports enter the European market. Traditionally occurring in countries with large ports like Rotterdam or Antwerp, this ‘Rotterdam effect’ implies that the Netherlands and Belgium collect the largest share of EU customs duties. Moreover, by treating such revenues as if they were national contributions of these countries, this adjustment to the calculations significantly deteriorates their OBB position.

Policy-specific operating budgetary balances

Finally, Operating budgetary balances (OBB) for the different EU policy instruments can be calculated to track how Member States ‘benefit’ from said instruments in pure accounting terms. The results corresponding to OBBS for the three largest policy areas – competitiveness, cohesion and natural resources – are presented in Figure 6. Taking into account single policy areas simply means reducing $TAE_I$ and $TAE_{EU}$ (see Box 2), to the extent that only funds channelled through the respective policy instrument are considered.

Starting with EU funding to foster economic competitiveness, Figure 6 shows that traditional net contributors especially turn out to be net recipients of EU competitiveness funds. Reversely, when solely taking into account cohesion spending in the calculations, the results are more in line with those based on
the standard OBB approach. **The traditional net recipients of EU money are predominantly located in Eastern Europe and with substantive net receipts from Cohesion funding.**

A distinct pattern can be observed for the policy area of natural resources (i.e. mostly direct payments via the Common Agricultural Policy, or CAP). From this perspective, the role of traditional net recipients does not change much. However, **as the largest beneficiary of CAP in absolute terms, France indeed becomes a net recipient of EU money for this policy field.** In conclusion, calculating Operating budgetary balances (OBB) according to the individual EU policy instruments clearly shows how national (net) payment profiles differ across the instruments.

**Figure 6. Operating budgetary balances for different EU policy instruments (€, 2018)**

![Graph showing operating budgetary balances for different EU policy instruments](image)

Source: Authors’ calculations based on *ibid.*

**Predicting operating budgetary balances *ex ante***

Finally, another methodological problem emerges when Operating budgetary balances (OBB) are used *ex ante* (i.e. to assess the distributive consequences of future EU spending). Certain spending programmes like Cohesion have predefined national allocations that could be used to predict future OBBs. However, the Cohesion programme regularly experiences underspending; funds reserved for certain Member States are not fully used. Since this was a regular pattern in several of the poorer Member States, *ex ante* OBBs misled these countries with forecasts about the net payments. Matters are even more complicated for programmes that do not have predefined national spending envelopes (e.g. Horizon 2020). Since the allocation of these funds is based on research excellence under competitive procedures, the resulting distribution of spending across EU research institutions is difficult to predict. Predictions are also hard for new EU policies that lack past results.

This ‘*ex ante*’ problem has policy implications if OBB considerations heavily influence decisions (e.g. on the next MFF). **National representatives tend to favour policies for which they have a reliable forecast – or even a political guarantee – about their country’s share in spending.** This bias will weaken the support for new or existing policies that have a less stable and predictable spending distribution. Furthermore, **if these new policies have a higher potential European added value than the easy-to-predict transfer policies of Cohesion and CAP, such bias will be especially costly for the community.**
Why are Member States attached to net balances?

Given all the caveats of the Operating budgetary balance (OBB) approach, one proposal is to simply dismiss the calculation of net balances. However, it is difficult to envision the Member States no longer making use of OBBs. Indeed, Member States have always tried to compute their net balance, even before the European Commission started to publish the calculations. It is thus necessary to understand why Member States are attached to net balances, and particularly so in more recent times.

As in any negotiation, parties look for an easy measure to determine whether they ‘win’ or ‘lose’ compared to both others and their initial position. In EU budget negotiations, Member States focus on improving their net budgetary balance, as this is an easy way to communicate success to the media and their voters. A crucial fact in this regard is that EU policies differ substantially concerning their salience for voters: cohesion spending that finances new infrastructure, or agricultural spending that concentrates funds in a specific sector receive much attention in home constituencies and, hence, enjoy huge political support. These highly salient spending items constitute an important element of the net balances, whereas policies with a less salient benefit (due to the spending occurring outside of the EU) tend to be disregarded. Moreover, indirect benefits of EU spending (e.g. second-round effects that may be cross-border in nature) also lack salience. These arguments favour the practice of calculating and using operating balances (see the Briefing on Strategies to overcome the “juste retour” perspective on the EU budget, February 2020).

Conclusion

Our critical analysis has shown that Operating budgetary balances are indicators with very limited informational value. Its arithmetical construction alone, inter alia the weighting procedure, includes severe limitations. Operating budgetary balances will, by definition, signal that the European added value from EU spending is zero since Operating budgetary balances of all the Member States must always add up to zero. Hence, under no circumstance should Operating budgetary balances serve as a compass that guides the EU budget towards higher value for all European citizens.
Appendix: The history of rebates

The political demand for data on budgetary balances reflects concerns about the fairness of the financial burden-sharing in the European budget. Since the 1970s, these concerns have led to various ad hoc or formula-based approaches to correct budgetary balances that were perceived as politically unacceptable. This can be exemplified by a brief overview of the history of the own resources system and its rebates (see Figure 7):

1970-1984 The own resources system is introduced, including customs duties, agricultural duties, and sugar and isoglucose levies, which are called traditional own resources (TOR). Member States (MS) are reimbursed 10% of these resources to cover administrative expenditures. As of 1980, MS paid 1% of their value-added tax (VAT) revenue in full (it was only introduced gradually before), which made 50% of the EU budget at the time.

1985-1987 Following the Fontainebleau European Council decision in 1984, the UK rebate comes into effect, since the UK’s GDP per capita was lower than the European Economic Community (EEC) average and it had a small agricultural sector with a large proportion of farm products imported from outside EEC. Therefore, there was relatively little benefit in EEC’s main spending programme – the Common Agricultural Policy (CAP) – for the UK at that time. At the same time, the country paid a high amount of VAT contribution, as its VAT base share in the gross national product (GNP) was higher than for other MS. In 1985, the UK received a reduction of its VAT contribution of European Currency Unit (ECU) 1 billion. As of 1986, the rebate was defined as 66% of the difference between its share of all VAT contributions and its share of all EU spending to all of the other MS, excluding EU expenditure in third countries. MS paid for this rebate in proportion to their VAT payments. Germany received a rebate on one-third of the additional amount to be paid (the ‘rebate on the rebate’). The VAT call rate is increased to 1.4%.

1988-1992 (Delors I) The maximum amount of own resources (i.e. global own resources ceiling) is set at 1.15% in 1988 and 1.2% in 1992 of EEC’s total GNP. A new source of revenue is introduced to balance expenditure if TOR and VAT revenues are insufficient – a GNP share of MS. A ‘capping mechanism’ for VAT contribution is introduced: MS’ VAT base must not exceed 55% of its GNP. The MS keep 10% of collection costs. The MS no longer finance the UK rebate proportionally to their VAT base, but to their GNP instead.

1993-1999 (Delors II) The global own resources ceiling is increased from 1.20% in 1993 to 1.27% in 1999. The cap of the VAT base is lowered to 50%. The VAT call rate is reduced gradually to 1.0% between 1995 and 1999.

2000-2006 Following the Berlin European Council decision in 1999, the 10% collection costs for TOR is increased to 25%. The VAT call rate is reduced to 0.75% in 2002 and 0.5% in 2003. Austria, Germany, the Netherlands and Sweden only pay a quarter of normal costs to the UK rebate. The own resources ceiling is kept at 1.27% of GNP, which is equal to 1.24% of GNI. New MS received a lump sum, cash flow facility in 2004 to improve their net budgetary position and other temporary payments.

2007-2013 The VAT call rate is reduced to 0.3%. Some countries received a reduction for this period: 0.225% for Austria, 0.15% for Germany, and 0.1% for the Netherlands and Sweden. Gross annual reductions of the GNI contribution are introduced for the Netherlands (€605 million) and Sweden (€150 million) for this period only. These latter gross reductions are financed by all of the other MS, including the UK, through their GNI. The UK’s advantage from the rebate is limited to €10.5 billion in order to make the country participate in enlargement financing. What is omitted from the calculation of the UK rebate is the value of non-agricultural expenditure from the EU budget in the 13 MS that have joined since 2004.

2014-2020 Germany, the Netherlands and Sweden received a reduced VAT call rate of 0.15% for this period. Denmark, Netherlands and Sweden received gross reductions in their annual GNI contribution of €130 million, €695 million and €185 million respectively (2011 prices) for this period only. Austria received a
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A reduction of GNI contribution of €30 million in 2014, €20 million in 2015 and €10 million in 2016. The TOR collection cost deduction is reduced to 20%. The own resources ceiling is reduced from 1.24% to 1.23% of GNI.

Figure 1. "I want my money back": Timelines of national rebates

Source: Authors’ own. ¹TOR = Traditional own resources. ²66% of the difference between the percentage of the UK’s contribution to the VAT resource compared to the other Member States, and the share of the EU budget spent in the UK. ³AT 0.225%, DE 0.15%, NL&SE 0.10%. ⁴Annual reductions of €130 million for DK, €695 million for NL, €185 million for SE. Reduction of €60 million for AT in 2014-2016.

2 Haug, Jutta; Alain Lamassoure; Guy Verhofstadt; Daniel Gros; Paul De Grauwe; Gaëtane Ricard-Nihoul and Eulalia Rubio (2011), “Europe for Growth: For a Radical Change in Financing the EU”, Brussels: Centre for European Policy Studies.

3 Traditional own resources are customs duties, agricultural duties and sugar levies that result from the common customs tariff (CCT).


5 The selection of Member States reflects the instructions in the terms of reference for this Briefing.


7 The figure builds on High Level Group on Own Resources (2016), op.cit.