WORKING PAPER | ISSUE 10 | 12 DECEMBER 2019

A NEW LOOK AT NET BALANCES IN THE EUROPEAN UNION'S NEXT MULTIANNUAL BUDGET

ZSOLT DARVAS

Whenever the European Union's budget is discussed, much of the political focus is on net balances – whether countries pay in more than they receive – rather than on the broader overall positive effects of EU spending. The largest net contributor countries have sought to limit their contributions, leading to the build-up of an ad-hoc, complex, opaque and regressive system of revenue corrections.

To inform debate on the 2021-2027 EU budget, I estimated the impact on net balances of the 2018 European Commission multiannual budget proposal, under three scenarios: elimination of rebates for all of the 2021-2027 new budget period, gradual elimination of rebates and non-elimination of rebates. These estimates were done on the basis of the EU's 'operating budgetary balance' indicator, and on the basis of a new and broader indicator, the 'net direct balance'. The calculation also takes into account the estimated net contribution of the United Kingdom to the 2021-2027 EU budget based on the draft EU-UK withdrawal agreement.

Under the baseline scenario of the Commission's proposal, those member states that currently benefit from rebates would face between 0.01 percent of GNI and 0.06 percent of GNI increases in their net contributions to the EU budget, measured by the EU's operating budgetary balance indicator. Meanwhile, central and eastern European member states that received several percent of their GNI as net payments from the EU in 2014-2020 would face significant reductions, though they would still receive net payments of about two percent of their GNI in 2021-2027.

The methodology in this paper can be easily applied to estimate the net balance implications of any new MFF proposal.

Zsolt Darvas (zsolt.darvas@bruegel.org) is a Senior Fellow at Bruegel and a Senior Research Fellow at Corvinus University of Budapest. The author is grateful to André Sapir and Guntram Wolff for helpful comments and suggestions.

bruegel

1 Introduction

The discussion about the European Union's budget is frequently centred on the balance between payments into the EU budget and EU spending in a particular country. Notwithstanding the difficulties in quantifying the overall impacts of the EU budget on member states' national budgets (Box 1), those countries that pay the largest net contributions according to the available indicator have sought to reduce their contributions. This effort has resulted in the build-up of an *ad-hoc*, complex, non-transparent and regressive system of revenue correction mechanisms.

In this paper, I estimate the impact on net balances of the Juncker Commission's 2018 Multiannual Financial Framework (MFF) proposal (European Commission, 2018a). At time of writing, this proposal is still being discussed, with the Finnish Presidency of the EU having proposed some changes. But so far the Juncker Commission's proposal is the only comprehensive proposal publicly available. The methodology I develop in this paper can be applied easily to estimate net balances under any new proposal.

Box 1: Shortcomings of EU budget net balance indicators

Any indicator of countries' net balances with the EU has major shortcomings, because the payments figures do not take into account numerous direct and indirect benefits for a member state arising from EU spending in other member states. For example, companies can participate in EU programmes financed outside of their home countries. EU spending in a country can generate imports from other EU countries. If EU funds improve the economic outlook of the beneficiary country (even in the short term), the implication is a larger European market benefitting all countries. All these direct and indirect effects create jobs and tax revenues at home from EU spending in other EU countries, but not included in net balance indicators.

Furthermore, spending on EU-wide public goods benefits every EU country. For example, increased EU spending on migration management in Greece after 2015 was vital otherwise even more irregular immigrants would have entered the EU. EU support for the fight against climate change in high greenhouse-gas emitting countries benefits all countries, even beyond the EU. Net balance indicators do not take into account these broader benefits arising from EU spending in other EU countries.

Estimating what the net balances would be under an MFF proposal is challenging. On the expenditure side, a complicating factor is the difference between 'commitment appropriations' (or ceilings on spending promises), 'payment appropriations' (or ceilings on possible payments) and actual payments[1]. MFFs so far have included ceilings for commitment appropriations and payment appropriations and the Juncker Commission's 2021-2027 MFF proposal followed this tradition: 1.11 percent of gross national income for commitment appropriations and 1.08 percent of GNI for payments appropriations. However, it is actual payments that matter for net balances, and therefore commitment and payment appropriations must be translated into expected actual payments. Typically, actual payments are about 6 percent lower than commitment appropriations and 3 percent lower than payment appropriations. My main assumption is that from 2021-2027, the ratio of actual payments over commitment appropriations will be the same as in 2014-2020.

[1] See Darvas *et al* (2017) for the definition and interpretation of these categories.

Identifying the allocation of actual payments to countries is another challenge that influences the calculation of net balances. For some programmes, such as cohesion and agricultural policies, pre-allocations exist[2], but not all countries are able to absorb available EU funding and thus the distribution of actual payments differs from the distribution of pre-allocations. For other programmes, such as research funds, there are no per-country pre-allocations.

- European Commission (2019b) has indicated the proposed pre-allocation of agricultural and cohesion commitments to EU27 countries corresponding to the Juncker Commission's proposal. These numbers need to be translated into actual payments, which depend on the absorption rate. My main assumption is that the rate of absorption in 2021-2027 will be the same as in 2014-2020. I also assume that countries lagging behind with absorption in 2014-2018 will improve somewhat in 2019-2020.
- No information is available on the per-country allocation of spending in categories beyond agriculture and cohesion. Spending in areas other than agriculture and cohesion therefore cannot be allocated to countries based on the MFF proposal. My guiding assumption is that the distribution of these specific programmes in the next MFF will be the same as the distribution of actual allocations in the annual budgets from 2014 to 2018, except for some new spending priorities such as border control, for which I assume spending will be proportional to GNI.

In terms of revenues, the Juncker Commission proposed new revenue streams on the basis of a yet-to-be adopted common consolidated corporate tax base (CCCTB), the EU's emission trading system (ETS) and a levy on non-recycled plastic waste (European Commission, 2018a). While the Commission presented some estimated ranges for the total EU budget revenues from these new sources, estimates for proportion of these revenues from each country were not given. The Commission also proposed a major simplification of the value added tax (VAT)-based own resources calculation methodology. I try to stick to the calculation methods proposed by the Commission as much as possible based on publicly available information. The proposed reduction in the retained value of customs duty is computationally simple, but a projection for future customs duty revenues is needed.

The exit of United Kingdom from the EU will have an impact on the next MFF. According to the October 2019 EU-UK draft withdrawal agreement, which has been endorsed by the European Council and the UK House of Commons, the UK will contribute its share of the 31 December 2020 value of outstanding EU budget commitments and will pay liabilities related to the pensions of the employees of EU institutions, while ongoing EU programmes will continue to be executed in the UK after Brexit. I estimate both the UK contribution to the next MFF and EU payments in the UK during the next MFF. On balance, the UK will contribute to the next MFF in net terms if the October 2019 withdrawal agreement is ratified. Since there is a reasonable probability of ratification, I include the estimated UK net contribution to the next MFF in my calculations.

A further factor is that the EU's 'operating budgetary balance' (OBB) indicator considers only a subset of EU payments and revenues. For example, revenues from customs duties are not included in OBB – for good reasons. However, the Juncker Commission also proposed to reduce the share of customs revenues retained for 'collection costs' from 20 percent to 10 percent, which would have direct budgetary consequences for member states, but this factor is not included in the OBB indicator. To account for this and other factors, I develop a new indicator that I call 'net direct balance' (NDB), which considers all EU budget expenditures and a much higher share of EU budget revenues. I present results both for OBB and NDB.

[2] See https://ec.europa.eu/info/strategy/eu-budget/spending/country/pre-allocations_en.

A final complicating issue is the treatment of various rebates and other revenue correction mechanisms, for which I calculate three alternative scenarios:

(1) Such mechanisms are abolished as of 1 January 2021 (except the corrections for the security and citizenship opt-outs of Denmark and Ireland);
(2) They will be reduced gradually between 2021 and 2025 as proposed by the European Commission (again, with the exceptions of the security and citizenship corrections for Denmark and Ireland);
(3) They remain in place in the full period from 2021 to 2027 (except for the UK rebate and the rebates on the UK rebate).

Throughout the paper I make transparent assumptions. I start by presenting data on net balances during the first five years of the current MFF, 2014-2018, for which data on the execution of the EU budget is available. Then I discuss and quantify the impact of rebates on all EU countries from 2014 to 2018 – which I believe in itself reveals several less-known facts. This is followed by an analysis of the 2021-2027 MFF based on the Juncker Commission's proposal (European Commission, 2018a). I estimate the expected actual payments from the EU budget in each EU country, and EU budget revenues from each EU country, under the three rebate scenarios listed above. Finally, I compare net balances under the current MFF with estimated net balances under the proposed 2021-2027 MFF.

2 Net balances under the EU budget in 2014-2018

EU budget financial reports and data on the budget execution[3] show how the 'operating budgetary balance' (OBB) is calculated[4]. OBB is widely used as an indicator of countries' net financial contributions to the EU budget. It takes into account 80.6 percent of EU spending and 76.8 percent of EU revenues (based on 2014-2018 data; see Table 1). In this paper I develop an alternative measure that I call 'net direct balance' (NDB) with the EU budget, which covers 100 percent of EU spending and 90.2 percent of EU revenues from 2014 to 2018.

Table 1: Share of EU payments and revenues in total EU payments and revenues considered by net balance indicators

		2014-2018	2021-2027
Operating budgetary balance (OBB)	Payments	80.6%	75.5%
	Revenues	76.8%	64.9%
Net direct balance (NDB)	Payments	100.0%	100.0%
	Revenues	90.2%	92.0%

Source: Bruegel. Note: the 2014-2018 data based on the actually executed budgets; the 2021-2027 values are estimates as described later in this paper.

No indicator of EU budget net balances is perfect. Both the OBB and NDB have various strengths and weaknesses. Table 2 compares the items included in the two indicators.

[3] See https://ec.europa.eu/info/publications/financial-reports_en and https://ec.europa.eu/budget/graphs/revenue_expediture.html.
[4] See the definition of OBB on pages 72-73 of European Commission (2019a).

Table 2: Comparison of the operating budgetary balance (OBB) and net direct balance (NDB) indicators

	OBB includes:	NDB includes:
Expenditures		
Expenditures allocated to member states except administration	yes	yes
Expenditures on EU administration	no	yes
Earmarked expenditures	no	yes
Other expenditures	no	yes
Expenditures in non-EU countries	no	yes
Revenues		
Own resources based on GNI and VAT	yes	yes
All rebates	yes	yes
Custom duties (and earlier sugar levies)	no	yes
Surplus from previous year	no	no
Other revenues	no	no
Proposed new own resources for 2021-2027	no	yes

Source: Bruegel. Note: 'Expenditures allocated to member states' refers to EU spending for which the country in which EU money is spent can be determined unambiguously. This is just part of the EU money spent in member states, because for some EU spending the destination country cannot be determined unambiguously.

The OBB covers only that part of money spent in member states (beyond spending on administration) for which the location of spending can be determined unambiguously. OBB excludes 'earmarked expenditures', 'other expenditures', and expenditures in non-EU countries, which accounted for 4.9 percent, 3.3 percent and 5.7 percent, respectively, of total EU expenditures from 2014 to 2018. 'Earmarked' and 'other' expenditures are spent in EU member states, but it is difficult to tell in which countries these payments were made.

There is a clear rationale for correcting for administration, given that a disproportionally large amount of administrative EU spending goes to Belgium and Luxembourg, because of the EU institutions present in these countries. EU institutions work for the whole EU and thus all EU countries benefit from spending on administration. Given this benefit, the complete exclusion of administration spending from net balances leaves an important 'EU public good' outside the calculation. In my NDB calculations, I assume that administrative spending benefits member states proportionally to their gross national incomes (GNI) and apportion administrative spending to EU countries proportionally to their GNI.

Sharing out a category of spending between countries proportionally to their GNI influences net balances, even if most of the national contributions to the EU budget are based on the distribution of GNI. The reason is that other EU money (that is, 80.6 percent of actual EU spending considered by OBB from 2014 to 2018, see Table 1) is not spent in member states according to GNI (for example, agricultural subsidies do not follow GNI). If the remaining 19.4 percent of EU spending is attributed to member states according to GNI, then the overall sharing out of EU spending will be somewhat closer to the actual distribution of GNI than if only the 80.6 percent of EU spending covered by OBB is taken into account.

Money from the EU budget spent in non-EU countries reflects the global role of the EU. Without such EU spending, member states would presumably still spend this amount from their national budgets outside the EU for the same purposes. For this reason, I include money from the EU budget spent outside the EU in my NDB calculations as if these expenditures were made in EU member states proportionally to their GNI.

I also consider 'earmarked' and 'other' expenditures as if they were spent in EU member states proportionally to their GNI.

Among the revenues, the OBB only considers the so-called 'national contributions', which are composed of VAT-based own resources, GNI-based own resources and the various rebates and corrections. It does not include customs duties, which is sensible, given that the EU is a customs union with a common foreign trade policy.

In the 2014-2020 MFF, member states retained 20 percent of customs duties as 'collection costs'. The Juncker Commission proposed to reduce this rate to 10 percent, which will impact the cash-flow budget balance of member states as a result from a change to the EU budget. Therefore, I also include customs duty revenues transferred by member states to the EU budget in my NDB indicator.

The OBB does not include 'other revenues', which include fines imposed on companies for infringing EU competition rules, interest on late payments, and contributions from non-EU countries. This revenue amounted to €51.5 billion in total from 2014 to 2018. I do not allocate this revenue to member states either.

While the EU budget should be balanced, in practice it always ends up with a surplus. In 2014-2018, the cumulative amount of surpluses was €20 billion, a relatively large amount. Since a surplus each year is supposed to reduce the gross contributions of member states in the subsequent year, I do not allocate this surplus to member states.

Finally, the Juncker Commission proposed new own resources based on the yet-to-be adopted common consolidated corporate tax base (CCCTB), the EU's Emission Trading System (ETS) and a levy on non-recycled plastic waste. The OBB would not include these contributions (unless the definition of OBB is revised), but I estimate the potential revenues from member states and include them in my NDB calculations.

Table 1 shows that a lower share of EU expenditures and revenues would be included in OBB 2021-2027 than in 2014-2020. This decline results from the following factors:

- The proposed integration of the European Development Fund in the EU budget for 2021-2027, which was outside the EU budget in 2014-2020;
- EU spending in the UK in the 2021-2027 MFF[5];
- The proposed new own resources.

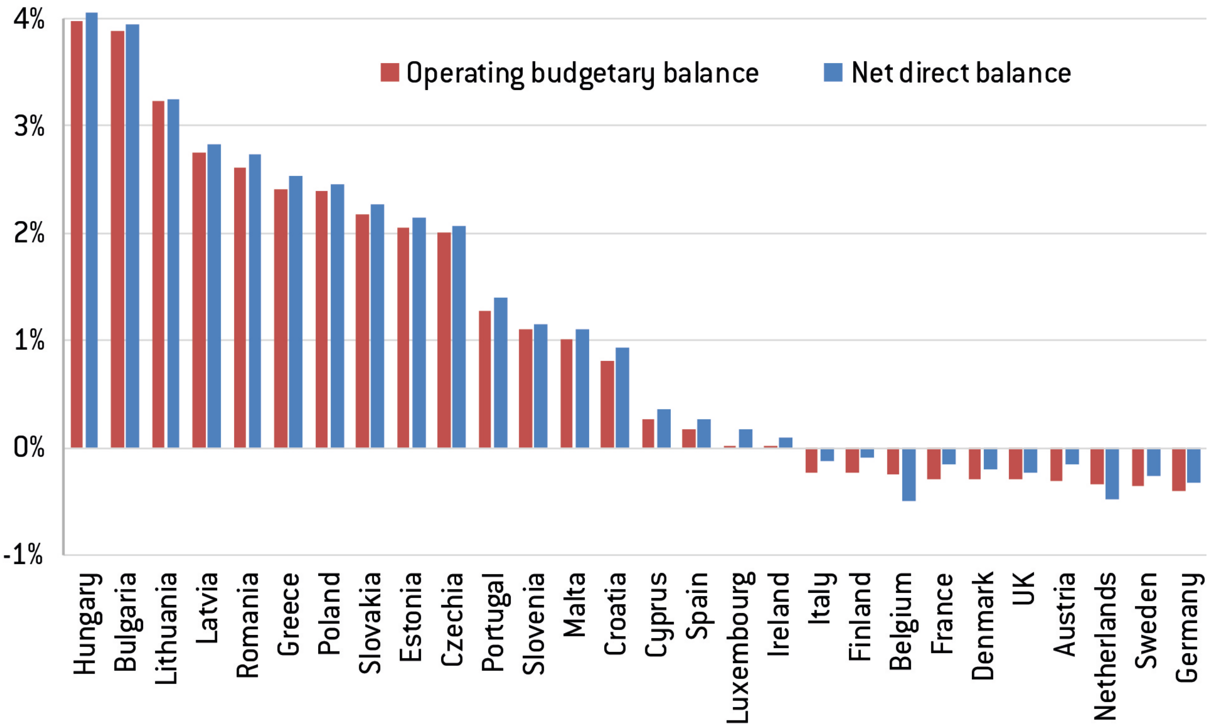
It should be noted that the OBB calculation adopts a particular adjustment to ensure that the sum of the net balances of the 28 member states is zero. Consequently, the reported OBB values do not correspond to actual net balances arising from the expenditure and revenue items considered (Table 2), but represent adjusted values. Without this, the sum of national OBBs would have resulted in an overall surplus of €16.8 billion, or 0.023 percent of GNI, in 2014-2018. I apply this adjustment in my OBB calculations in order to fully align with the EU methodology. But I do not adjust my NDB calculations, because what matters to member states is how much they actually get or pay in net terms, and not a hypothetical adjusted value. Since the NDB indicator covers 100 percent of EU budget expenditures and 90.2 percent of EU revenues, the sum of national NDBs result in an overall surplus of

[5] According to the October 2019 withdrawal treaty agreed by the UK and the EU27 negotiators and endorsed by the European Council and the UK House of Commons, the implementation of EU programmes and activities committed under the 2014-2020 and earlier MMFs shall continue to apply to the UK after 31 December 2020 until the closure of those EU programmes and activities. See: https://ec.europa.eu/commission/brexit-negotiations/negotiating-documents-article-50-negotiations-united-kingdom_en.

€58 billion, or 0.078 percent of GNI, from 2014 to 2018. A comparison of OBB and NDB should consider this overall surplus.

Figure 1 shows that there is little difference between the two indicators for many countries, but there are some notable differences in some cases. The NDB indicator shows somewhat larger negative positions than the OBB for Belgium and the Netherlands, mostly because these two countries collect large shares of customs revenues because of their well-located seaports, which are not included in OBB. In contrast, NDB shows slightly lower negative contributions from the other net contributor countries (Germany, Sweden, Austria, the UK, Denmark, France, Finland and Italy).

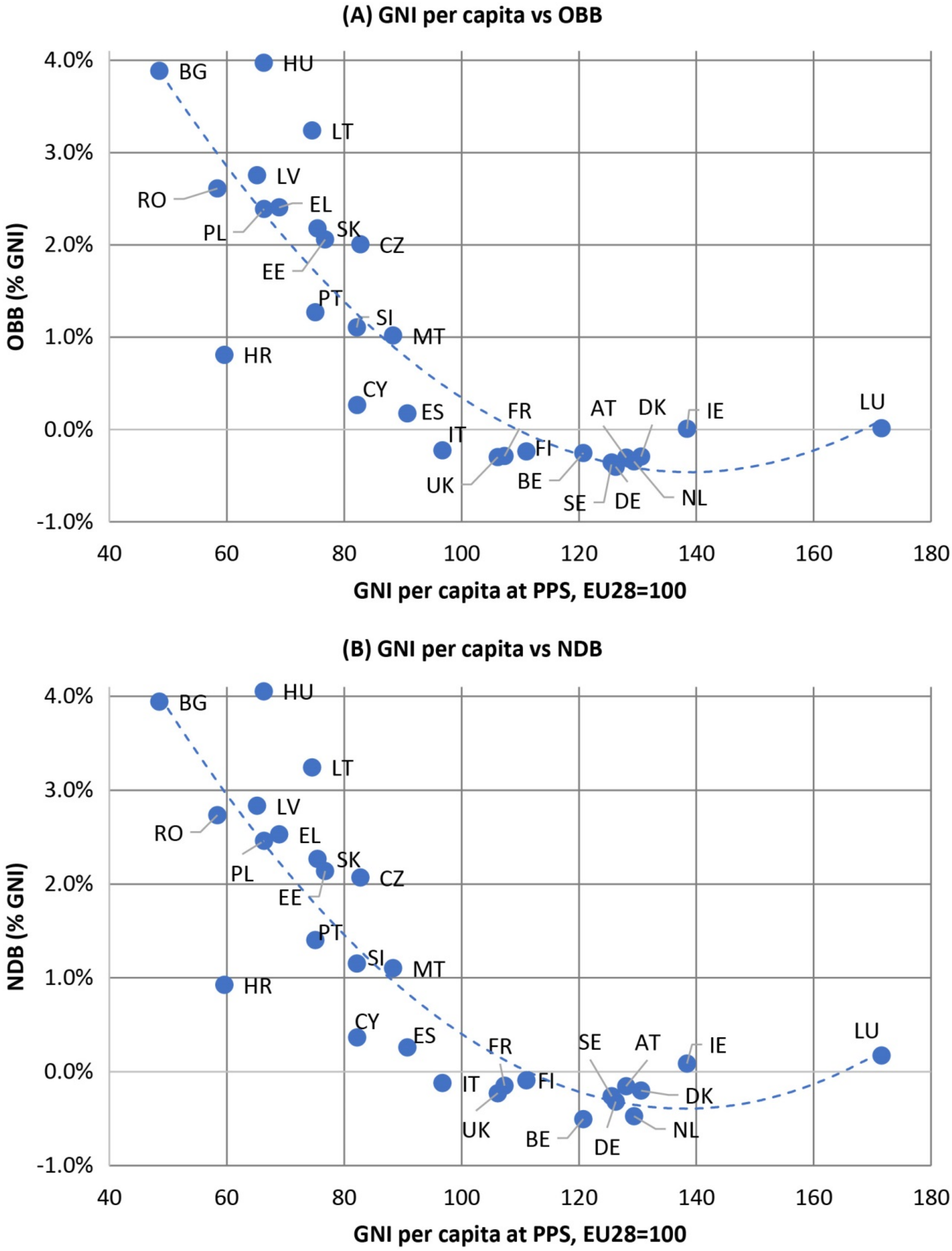
Figure 1: Net balances with the EU budget, % of GNI, average of 2014-18



Source: Bruegel based on European Commission data for the operating budgetary balance; own calculations for net balance as described in the text.

Net balances also reflect redistribution within the EU, which typically goes from countries with higher GNI per capita to countries with lower GNI per capita. Figure 2 confirms this relationship, but there are some exceptions. Among the net beneficiaries, Hungary received the greatest EU support as a share of GNI from 2014 to 2018, though Bulgaria, Romania and Croatia had much lower GNIs per capita, while Poland and Latvia had broadly the same GNI per capita. Of these countries only Bulgaria received a similar level of EU funding to Hungary as a share of GNI. Among higher income countries, Luxembourg has clearly the largest GNI per capita, but was not a net contributor to the EU budget, and was even a net beneficiary based on the NDB indicator. The same conclusion applies to Ireland, the country with the second largest GNI per capita after Luxembourg. Italy's net contribution was just slightly lower than the net contributions of most western and northern European countries, even though Italy's GNI per capita is significantly lower.

Figure 2: GNI per capita vs net balances with the EU budget, average of 2014-18



Source: Bruegel based on AMECO dataset November 2019 for GNI; European Commission data for OBB; author's calculations for NDB as described in the text. Note: GNI per capita is measured at purchasing power standards (PPS) relative to the EU28 average.

3 Rebates on rebates and other corrections

Various *ad-hoc* corrections to the financial contributions of some members states to the EU budget have been introduced since the mid-1980s (see eg D'Alfonso, 2016):

- UK rebate: Since 1985, the UK has been entitled to a financial rebate of about 66 percent of its net contribution to the EU budget of the previous year. While the basic concept of the UK rebate has remained the same, the formula to calculate it has been amended many times, making the calculations demanding, and has led to a complicated system of rebates. The UK rebate is adjusted retroactively up to three years later, as new information becomes available (see Box 2 in Darvas *et al*, 2018, for the current rebate formula). From 2014 to 2018, the UK rebate averaged €5.6 billion a year.
- Rebates on the UK rebate: In principle, the cost of the UK rebate is divided among the other EU countries in proportion to their share of the EU's GNI (excluding the UK), but there are exceptions. From 1985 to 2001, Germany paid only two-thirds of its normal share of the UK rebate, while since 2002, Austria, Germany, the Netherlands and Sweden have paid only one-quarter of their normal shares of the UK rebate. Between 2014 and 2018, a GNI-based sharing-out of the UK rebate would have implied a 0.044 percent of GNI extra contribution from the other 27 countries. But these four countries pay only 0.011 percent of their GNI for the UK rebate and thus the remaining 23 countries pay 0.065 percent of their GNI to compensate for the lower payments of the four countries.
- Reduced call rate for the value added tax (VAT) based contributions: In the 2007-2013 MFF, Austria, Germany, the Netherlands and Sweden benefited from temporary corrections in the form of reduced call rates for the VAT-based resource, ranging between 0.1 percent and 0.225 percent, instead of the standard 0.3 percent rate applied to all other member states (D'Alfonso, 2016). For the 2014-2020 MFF, Austria lost its privileged status and only Germany, the Netherlands and Sweden benefitted from a 0.15 percent call rate, half of the call rate applied to the other 25 countries, which remained at 0.3 percent[6]. There is 'capping': the VAT base to which the call rate is applied cannot exceed 50 percent of the GNI of the member state. And before capping and applying the call rate, the VAT base is harmonised across EU member states, which is "*based on a complex methodology*", involving "*unwieldy computations*" and calculations that are "*cumbersome and generate onerous administrative work*", as argued by European Commission (2018b).
- Lump-sum reductions on GNI-based contributions: In the 2007-2013 MFF, annual reductions were granted to the Netherlands (€605 million a year in constant 2004 prices) and Sweden (€150 million a year in constant 2004 prices) on their GNI-based contributions. In 2014-2020, measured in 2011 prices, Denmark pays €130 million less a year, the Netherlands pays €695 million less a year and Sweden pays €185 million less a year[7]. Austria also benefitted from reduced GNI-based contributions, but only for three years: in 2014 (€30 million), in 2015 (€20 million) and in 2016 (€10 million) – perhaps to sweeten a bit its dropping-out from the group of countries eligible for VAT-based reductions.
- Corrections related to security and citizenship opt-outs: Denmark, Ireland and the United Kingdom are exempt from financing specific parts of security and citizenship policies, for which they have opt-outs under the Amsterdam Treaty, with the exception of the related administrative costs. On average over 2014-2018, Denmark received €10 million annually, Ireland €6 million and the UK €75 million.

[6] See further information at: https://ec.europa.eu/info/strategy/eu-budget/revenue/own-resources/value-added-tax_en.

[7] See further information at https://ec.europa.eu/info/strategy/eu-budget/revenue/own-resources/correction-mechanisms_en and in D'Alfonso (2016).

Unlike the UK rebate, the other corrections are financed by all member states, including those that benefit from the reductions, based on their shares of EU GNI.

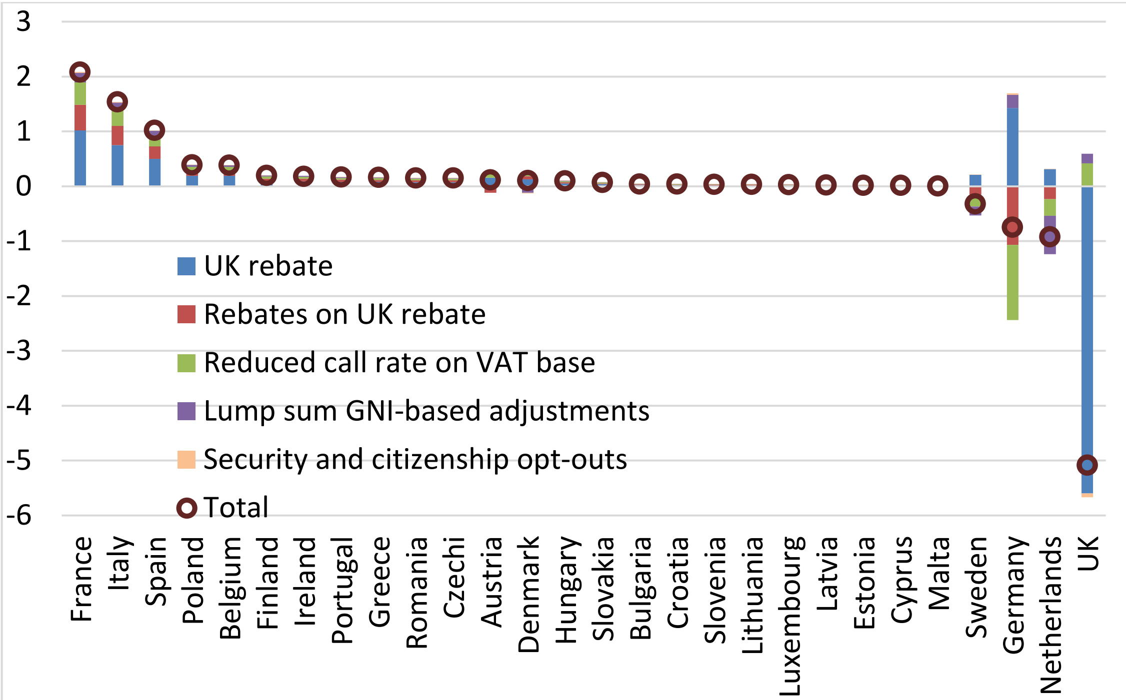
I also note (but do not analyse in this paper) that there is a so-called 'hidden rebate' related to customs duties. The EU is a customs union with a common foreign trade policy, so it is sensible that customs duty revenues go to the EU budget. However, member states retain 20 percent of customs duty revenues as 'collection costs', which is excessively high and benefits those countries that have well-located seaports, including Belgium and the Netherlands.

Figure 3 on the next page shows the total impact of these corrections, both in euros (top panel) and as a share of national GNI (bottom panel)[8].

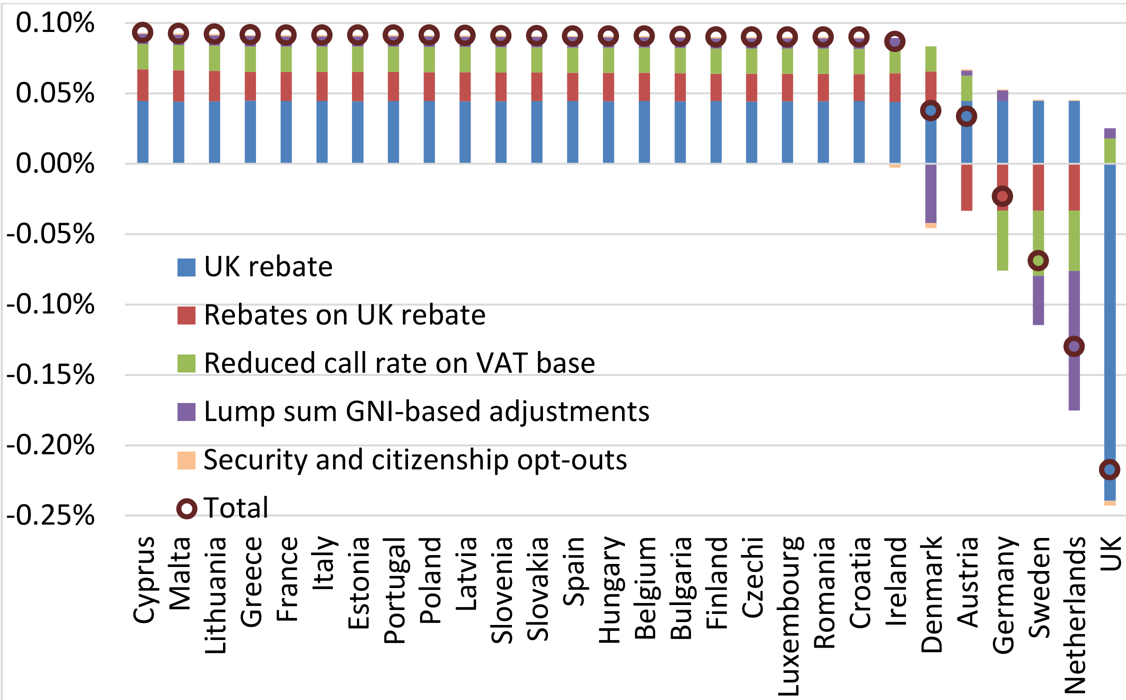
[8] Figure 3 in European Commission (2018b) reports the euro values of some corrections for Germany, the Netherlands, Sweden, Denmark and Austria. For the reduced call rate on the VAT own resource, the Commission's chart only reports the direct impact of the reduction, but not the total impact, which also results from increased GNI-based contributions to compensate for the gaps. My calculation for the direct impact looks identical to the values reported on the chart, eg for Germany, my estimate for the direct impact is €1.95 billion, while for the Netherlands it is €0.43 billion. But the gaps left by these adjustments are compensated for by larger GNI-based contributions, which all EU countries make, including Germany, the Netherlands and even the UK. For Germany, this amounted to €0.58 billion on average a year, leading to a total impact of the reduced VAT call rate of €1.95 billion - €0.58 billion = €1.37 billion. Since Figure 3 shows the total impact, the values reported in this figure differ from Figure 3 in European Commission (2018b).

Figure 3: Average annual corrections and rebates from 2014 to 2018 (€ billions and percent of GNI)

A) € billions



B) Percent of GNI



Source: Bruegel based on European Commission data . Note: values reported correspond to the change in the contribution to the EU budget resulting from the various revenue adjustments, and therefore a positive value implies that a country contributes more, while a negative value implies that a country contributes less.

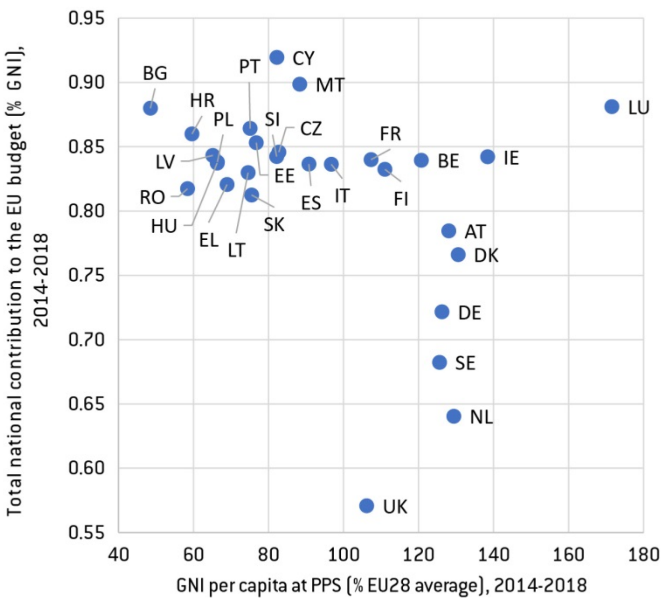
In terms of euros, France pays the most, €2.08 billion a year, for all these corrections, followed by Italy (€1.54 billion) and Spain (€1.02 billion). The main beneficiary is the UK with €5.08 billion a year, followed by the Netherlands (€0.92 billion), Germany (€0.75 billion) and Sweden (€0.32 billion). As a share of GNI, 22 EU countries contribute close to 0.09 percent of their GNI to these corrections, to benefit the UK (0.22 percent of GNI), the Netherlands (0.13 percent of GNI), Sweden (0.07 percent of GNI) and Germany (0.02 percent of GNI). Austria and Denmark are net contributors to the adjustments with about 0.035 percent of GNI, since these countries benefit from only some of the corrections.

This system of rebates and corrections is *ad-hoc*, opaque and complex and also impacts EU countries unevenly, contradicting the equal treatment principle. As recalled by D'Alfonso (2016), the European Court of Auditors has long highlighted[9] that these correction mechanisms compromise the simplicity and transparency of the financing system of the EU budget, and have various shortcomings, including:

- The absence of defined criteria to assess objectively whether a budgetary burden is excessive and when a member state qualifies for a correction;
- The lack of a monitoring mechanism to establish whether a member state benefiting from a correction still qualifies for it;
- The lack of a monitoring mechanism to establish whether other member states that do not receive a correction now qualify.

These corrections also make national contributions (the sum of VAT-based and GNI-based contributions adjusted by the rebates) to the EU budget regressive, as pointed out by the High Level Group on Own Resources (2016). That is, richer countries benefitting from rebates contribute less to the EU budget as a share of GNI than poorer countries (Figure 4).

Figure 4: GNI per capita vs national contributions to the EU budget, 2014-2018

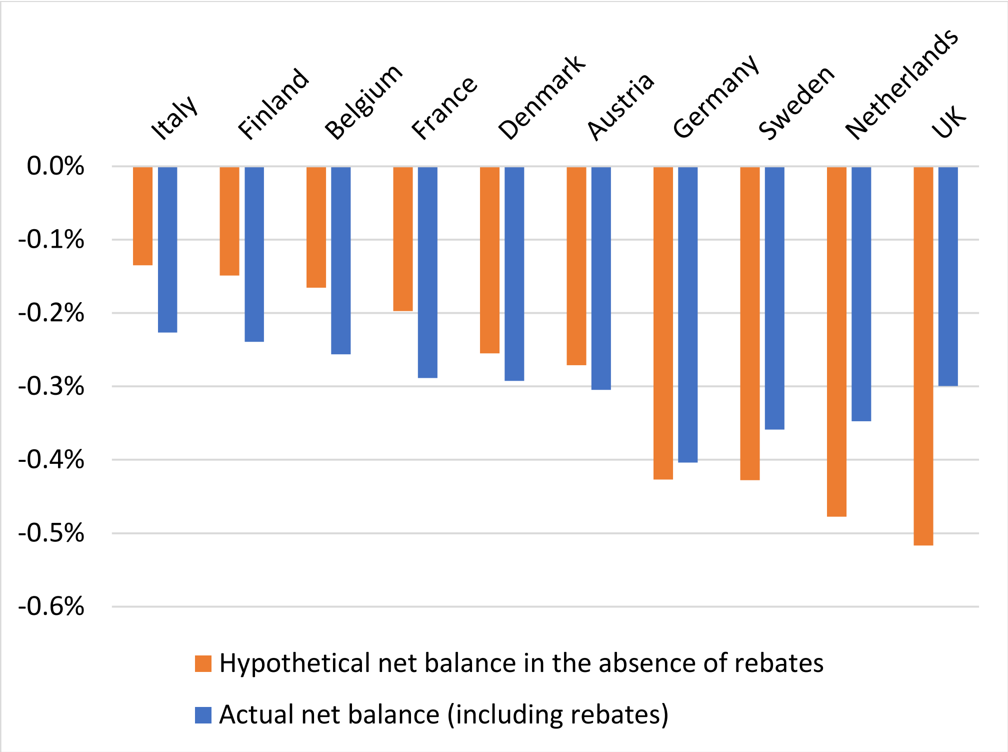


Source: Bruegel based on European Commission data on the execution of EU budgets in 2014-2018 and data on GNI per capita measured at purchasing power standard (PPS), average of EU28 in 2014-2018.

[9] See https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52005AA0004, https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52006AA0002 and https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52012AA0002.

The six countries benefitting from the rebates are also the largest net contributor countries (Figure 5). Most likely, representatives of these net contributor countries believe that a big share of the EU budget is redistributed to countries for spending that does not qualify as European public goods, or that there are risks money is improperly use, and that is why they wish to limit their contributions[10]. The best solution would be to reform EU budget spending to provide only European public goods, in which case all rebates should be eliminated[11]. But if such a reform of EU spending is politically impossible, then at least the rationale for the rebates should be spelt out clearly and a transparent correction system built on clear principles should replace the current *ad-hoc*, opaque, complicated and regressive system of rebates.

Figure 5: Net contributions to the EU budget – with and without rebates, %GNI, 2014-2018



Source: Bruegel based on European Commission data on the execution of EU budgets in 2014-2018. Note: the EU's OBB indicator is used.

[10] In Darvas (2019a) I argued that the 1984 Fontainebleau Summit conclusion ("*any Member State sustaining a budgetary burden which is excessive in relation to its relative prosperity may benefit from a correction at the appropriate time*") cannot apply to the net contributor countries receiving various rebates, but the true reason could be that these countries aim to limit their net contributions.

[11] With the exceptions of the Irish and Danish corrections for their opt-outs from parts of EU security and citizenship policies, because these are related to Treaty-based non-participation in certain EU programmes.

4 EU payments in the next MFF

The Commission's proposal (European Commission, 2018a) gives commitment ceilings for the MFF as a whole and for each programme, as well as the overall ceiling for payments appropriations. There are three important issues to consider when estimating which country gets what money.

4.1 Current versus constant prices

The Juncker Commission presented EU budget tables both at 2018 constant prices and at current prices, by assuming a 2 percent annual inflation rate. As European Court of Auditors (2018, page 5) noted, this 2 percent annual deflator adjustment "*is an EU budgetary convention and does not necessarily reflect the actual rate of inflation in the EU*". Since inflation will likely remain below 2 percent in the years to come and the historical budget execution tables include current price values, I use the current price values throughout this paper. I also use current-price projections of GNI when I calculate the ratio of spending and revenue as a share of GNI.

4.2 Commitment appropriations, payment appropriations and actual payments

The EU budget has a strange structure in which 'commitment appropriations' and 'payment appropriations' differ. In the 2021-2027 MFF proposal (European Commission, 2018a), commitment appropriations amount to 1.11 percent of EU GNI, while the overall ceiling for payment appropriations is 1.08 percent of GNI. However, not all payment appropriations are actually spent: in the executed budgets between 2014 and 2018, actual payments amounted to 94.4 percent of commitment appropriations for these years. The difference between actual payments and commitment ceilings has four main causes:

(1) The payment ceiling is lower than the commitment ceiling;
(2) Beneficiaries are not always able to absorb the full amount that would be available;
(3) Some commitments are de-committed; and
(4) The different time horizons for payments and commitments: money committed in a particular year is only partly spent in that year, about half of the committed amount is spent in later years (therefore, about half of actual spending in a year results from commitments made in earlier years).

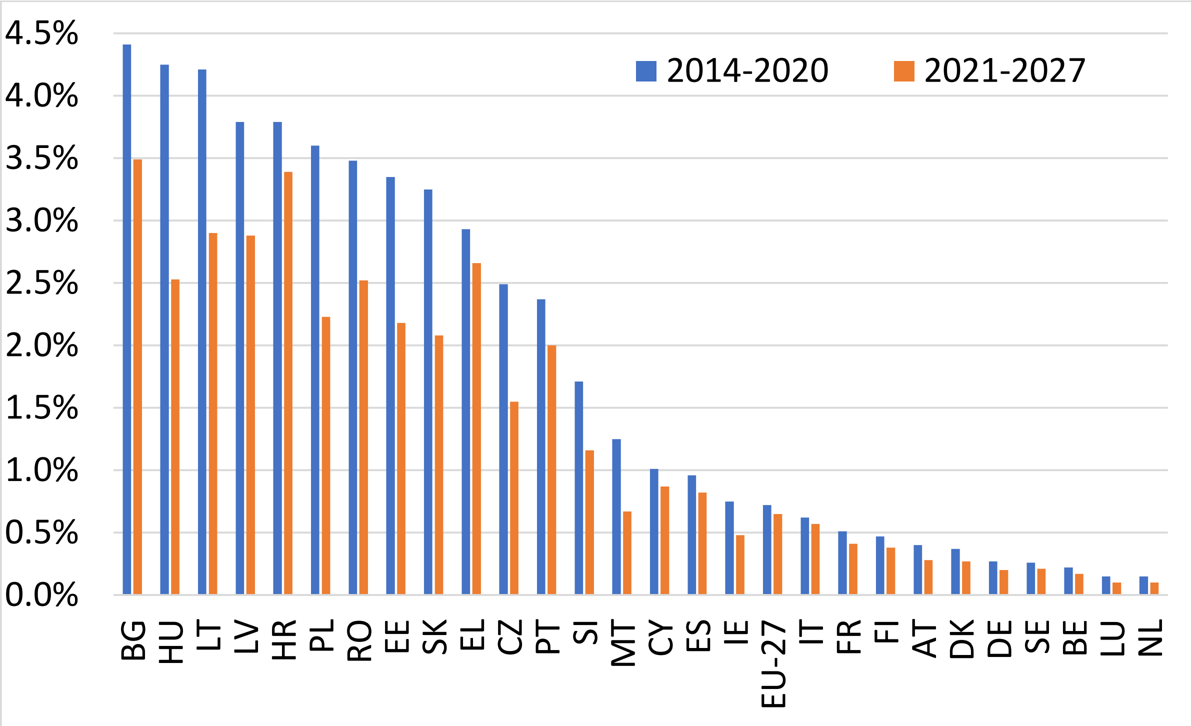
The implication for my calculation is that not all proposed commitment appropriations would actually be spent in 2021-2027. I assume that the actual payment/commitment ceiling rates of the main spending categories seen from 2014 to 2018 will prevail in 2021-2027 too. Actual payments are practically equal to commitments for administration expenses, while for other spending categories, the ratio is lower than 100 percent and differs from one category to another. The only tweak I make is an assumption that there will be a slight increase in the actual payment/commitment ratio for agricultural and cohesion spending in 2019-2020 (as detailed in the next subsection). Thereafter, I assume that the resulting 2014-2020 ratio will prevail in 2021-2027.

4.3 Country allocations and the issue of absorption of EU funds

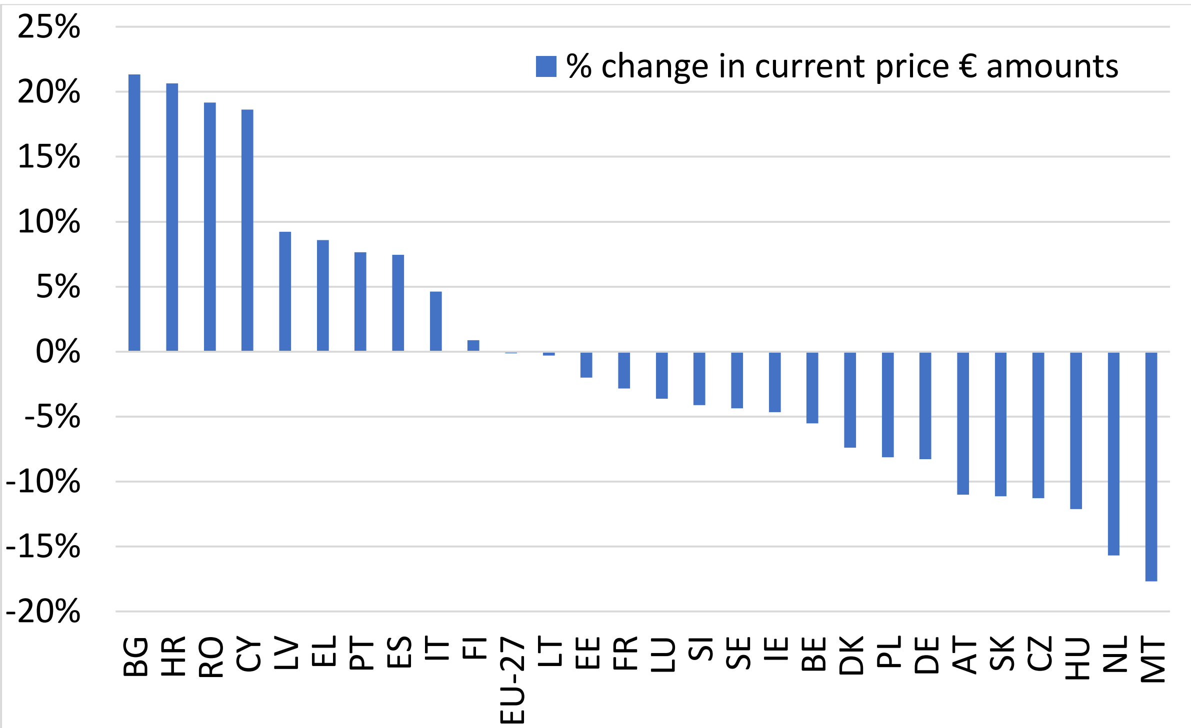
European Commission (2019b) presented the proposed pre-allocations of common agricultural policy and cohesion/regional policy commitments in the 2021-2027 MFF proposal, in comparison with the adopted pre-allocations under the 2014-2020 MFF (Figure 6).

Figure 6: Combined agricultural and cohesion policy commitments in the 2014-2020 MMF and the proposed 2021-2027 MFF (percent of GNI and percent change in € values)

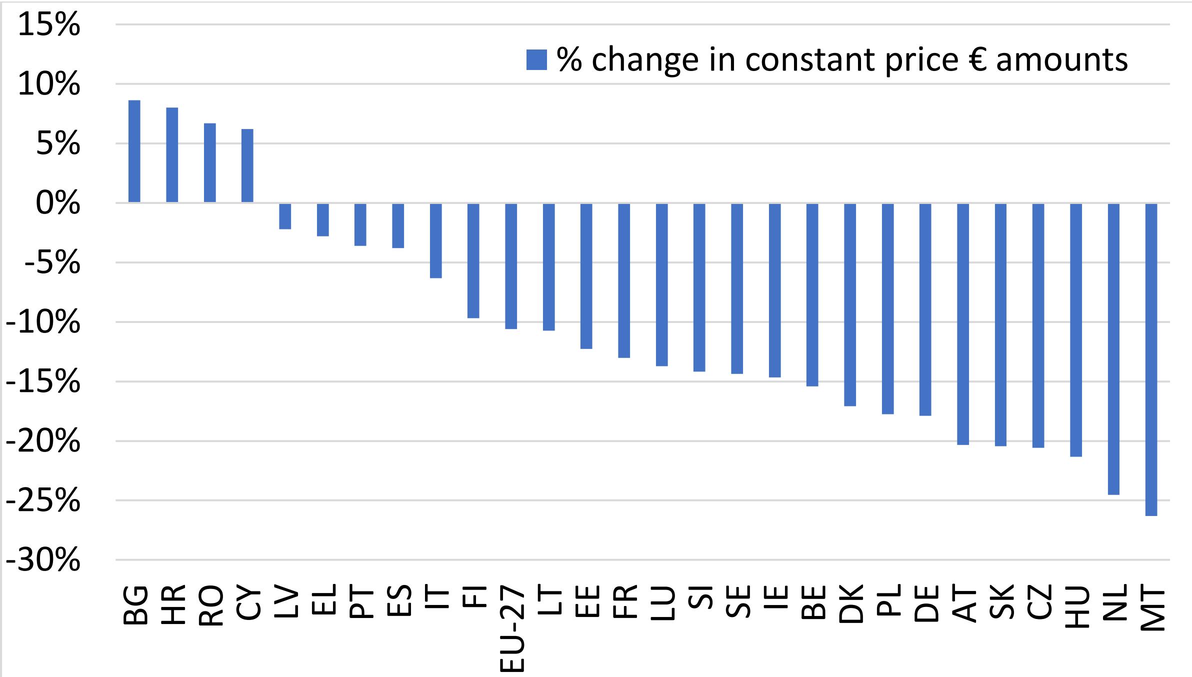
A) Percent of GNI



B) Implied percent change in current price € values from 2014-2020 to 2021-2027



C) Implied percent change in constant price € values from 2014-2020 to 2021-2027



Source: Bruegel based on data from European Commission (2019b) (panel A) and Bruegel (panels B and C). Note: Panel B values were obtained by multiplying the GNI shares from panel A with projected GNI in 2014-2020 and 2021-2027 to obtain the € values for both periods, from which percent changes in € values were calculated. Panel C values were obtained by deflating values shown in panel B with the expected change in the EU27 GDP deflator, which is 11.7 percent (that is, the change in the deflator from the average of 2014-2020 to the average of 2021-2027). I used the EU27 deflator, not country-specific deflators. Projections for country-specific deflators are available in local currencies, while deflating a euro value would necessitate making assumptions about the expected changes in exchange rate, but there is no solid basis for that.

Panel A of Figure 6 shows that there are cuts (as a share of GNI) in aggregate spending on the two largest EU budget policies everywhere, especially in central and eastern European member states, where this spending amounts to several percent of GNI in the current MFF. Therefore in 2021-2027, the EU would spend less relatively on agriculture and cohesion policy.

However, spending cuts relative to GNI do not necessarily mean cuts in current price € values because GNI is expected to grow rapidly. For example, while Bulgaria faces a cut from 4.41 percent of GNI in 2014-2020 to 3.49 percent of GNI in 2021-2027, GNI is expected to grow by 53 percent over the same period, and hence EU commitments are actually expected to grow by 21 percent in current price € terms (Panel B of Figure 6). Croatia, Romania and Cyprus are also expected to obtain about 20 percent more in commitment appropriations in 2021-2027 than in the preceding seven year period. Malta and the Netherlands are expected to face cuts of more than 15 percent, while Hungary, the Czech Republic, Slovakia and Austria are expected to receive about 10-12 percent less in commitments. Inflation is expected to erode the value of current price changes by 11.7 percent, leaving only four countries to see growth in the money they receive for agriculture and cohesion policy (Panel C of Figure 6).

However, these numbers relate to commitments, while actual payments are influenced by the ability of countries to absorb EU funds. For example, in the first five years of the current MFF, Croatia was worst in cohesion fund absorption. From 2014 to 2018 on average, EU cohesion payments to Croatia amounted to only 0.63 percent of GNI, while total allocations amount to 2.72 percent. It seems unlikely that Croatia will be able to catch up with the unspent amounts, because it would mean that not only would spending have to increase to 2.72 percent of GNI in 2019 and 2020, but also that the money in the gap between the 2.72 percent allocation and the actually expenditure level of 0.63 percent over the five-year long 2014-2018 period would also have to be spent.

It is not possible to predict how much Croatia and other countries that lag behind with spending will actually spend in 2019-2020, nor is it possible to predict actual spending per country relative to the available commitments from 2021 to 2027. I have therefore made the following assumptions about agricultural and cohesion payments for my calculations:

(a) In 2019-2020, countries will make up 25 percent of their gaps between commitments and actual spending in 2014-2018;
(b) The ratio of actual payments/commitments in 2021-2027 will be the same as in 2014-2020.

Assumption (b) implies that possible differences in the actual absorption rate in 2014-2020 and 2021-2027 will not impact my calculations.

I also assume that the share of earmarked, other and non-EU agricultural and cohesion spending in 2021-2027 will be the same as it was from 2014 to 2018. Separating out earmarked, other and non-EU payments is important from the perspective of the OBB, which does not include these spending categories.

For other sending categories beyond agriculture and cohesion, the Commission has not presented expected country-specific allocations, nor the shares of non-EU, earmarked and other spending. A further consideration is that while the European Development Fund is outside the EU budget in 2014-2020, it would be included in the EU budget in 2021-2027 under the Commission's proposal. Therefore, the share of non-EU spending is set to increase in the next MFF. I make the following assumptions for programmes beyond agriculture and cohesion:

- For most of these programmes, I assume that the distribution of actual payments to EU countries, and earmarked, other and non-EU spending in 2021-2027, will be the same as the distribution of actual payments from 2014 to 2018. But this assumption cannot be applied to all programmes, because some programmes were merged and new programmes were also proposed. I tried to match the amended programmes under the proposed MFF with the current MFF's programmes.
- For the following programmes I assume that payments will be proportional to the distribution of GNI among the 27 EU countries (in brackets I show the total 2021-2027 commitment ceilings for these programmes):
    - Integrated Border Management Fund (€9.3bn)
    - Decentralised border management agencies (€12.0bn)
    - Decentralised security agencies (€1.1bn)
    - European Defence Fund (€13.0bn)
    - Military Mobility (€6.5bn)

  Therefore, the €41.9 billion combined commitment ceilings for these spending categories would account for 3.3 percent of the total €1,279 billion proposed overall commitment ceiling for 2021-2027. Given this relatively low share, even if actual distribution differs from the distribution of GNI, it will have only a small impact on net balances. And in any case, these spending categories correspond well to European public goods from which all EU countries benefit, irrespective of the actual place of payment, so it is reasonable to allocate this spending according to GNI.

- For a euro-area budget, the Commission has proposed a Reform Support Programme, including a Reform Delivery Tool and Convergence Facility, amounting to €25.1 billion in 2021-2027. In subsequent negotiations, the Eurogroup opted for a Budgetary Instrument for Convergence and Competitiveness (BICC) involving similar amounts. Since it is unlikely that both proposals will be simultaneously adopted, I only take into account a €25.1 billion euro-area budget, whatever its name will be. I assume that payments will only go to the 19 euro-area countries and only the 19 euro-area countries will contribute to this budget, without any redistribution (that is, the amount paid in by a country will be spent by the EU in that country). The no-redistribution assumption is based on the following principle in the term sheet[12] agreed by the Eurogroup: "*The available funds per country should be within an acceptable range of the contributions of that country.*" I assume that both the contributions to the euro budget from the 19 euro-area countries and EU payments from the euro-area budget in the 19 euro-area countries will be proportional to the distribution of GNI among the 19 euro-area members.

Table 3 sets out the results (see at the end of the paper). Panel A of the table reports my projection for actual payments in the 2014-2020 MFF: data is available for 2014-2018 and I assume that as a share of GNI, payments as a share of commitments in 2019-2020 will be the same as in 2014-2018, except for agricultural and cohesion spending (for which I assume some catching-up with the not-yet-spent nationally allocated commitments, as described earlier in this section). For my NDB balance indicator, I also distribute EU administrative spending and earmarked, other and non-EU spending among countries based on their GNI. For 28 EU members, actual spending amounts to 0.96 percent of GNI in 2014-2020. But if we consider only the 27 countries after Brexit, actual payments amount to 1.06 percent of GNI in 2014-2020.

Since administrative and non-EU spending will not decline with Brexit, Panel B of Table 3 distributes such spending among the 27 member states. In this case total payments as a share of GNI would amount to 1.08 percent in 2014-2020.

Panel C of Table 3 shows my estimates for the 2021-2027 MFF.

The largest increases in EU payments are predicted to happen in Cyprus, Luxembourg, the Netherlands and Belgium, which will see the total allocated spending they receive rise by between 38 percent and 67 percent, well above the EU's average of 15 percent. A major reason for these large increases is that certain spending priorities gained more importance, in which the share of these countries is relatively large. For Cyprus, the expected rapid GNI increase (38 percent from 2014-2020 to 2021-2027) also plays a role, given that the Juncker Commission proposed that cohesion commitments as a share of GNI should remain almost unchanged (0.62 percent of GNI in 2014-2020 and 0.59 percent of GNI in 2021-2027), while agricultural spending hardly declines, and thus rapid GNI increase also implies a rapid increase in the € values of that spending.

While central and eastern European countries are expected to receive EU funding equivalent to about 2-3 percent of their GNI, the allocated payments are expected to be reduced as a share of GNI, and to be reduced even nominally in euros for the Czech Republic, Hungary, Poland and Slovakia. The reasons for nominal reductions arise from the changed structure of the proposed MFF (lower agricultural and cohesion commitments, see Figure 6), changed principles for distribution of funding between EU countries and the successful economic development of these countries, with their GDP per capita

[12] See https://www.consilium.europa.eu/en/press/press-releases/2019/06/14/term-sheet-on-the-budgetary-instrument-for-convergence-and-competitiveness/.

having increased relative to the EU average. However, the percent rate of reduction of total allocated payments is somewhat lower than what is implied only by the reduction in agricultural and cohesion commitments (Panel B of Figure 6), because these countries would also obtain higher funding from other programmes. And when we also distribute earmarked, other, non-EU and administrative payments among member states, the nominal change for these four countries is close to zero (between -4 percent and plus 1 percent) for total distributed spending.

5 EU revenues in the next MFF

The Juncker Commission (European Commission, 2018a) did not provide any table on total revenues broken down by member state contributions and other sources, but made a number of proposals on how to improve the financing of the EU budget and presented some estimates on their impact on the EU27 as a whole. These included a simplified calculation method for VAT-based own resources, a reduced share of retained collection costs from customs revenues, and three new revenue streams related to the EU's Emission Trading System (ETS), non-recycled plastic waste and a revenue on the basis of the planned Common Consolidated Corporate Tax Base (CCCTB). The Commission also proposed the gradual elimination of rebates. Brexit will clearly have an impact on the revenue side of the EU budget.

5.1 Brexit

Given the UK House of Commons approval of the October 2019 Brexit deal[13], it seems likely that the UK will leave the EU with a withdrawal agreement. This agreement states that the UK will contribute to the 2020 EU budget as if it was an EU member and it will also contribute to the 31 December 2020 amount of EU outstanding budgetary commitments, or from its French name, *reste à liquider* (RAL), and to the pension and sickness liabilities of EU staff[14]. I make the following assumptions about the impact of Brexit on the 2021-2027 MFF. The calculations are based on an update of Darvas *et al* (2017) and are discussed in detail in Darvas (2019b):

- The UK will contribute €35.5 billion to the RAL in 2021-2027;
- EU spending from the RAL in the UK in 2021-2027 will amount €14.3 billion;
- The UK will contribute €3.9 billion in 2021-2027 to the liabilities of EU staff pensioners;
- The UK is entitled to a rebate in 2021, amounting to €5.3 billion, since according to the current financial regulation, the rebate to the UK is paid in the subsequent year and the UK will fully contribute to the 2020 annual budget;

[13] See https://ec.europa.eu/commission/publications/working-document-consolidated-version-withdrawal-agreement-following-revision-protocol-ireland-northern-ireland-and-technical-adaptations-articles-184-and-185-agreed-negotiators-level-and-endorsed-european-council_en.

[14] Plus the UK would also contribute to contingent EU liabilities accumulated up to December 2020, should some of them turn into actual payment obligations, but I do not consider these, because of their uncertainty. The UK would also receive some payments from the EU, such as the UK's share of the net assets of the European Coal and Steel Community in liquidation on 31 December 2020, the UK's share of the paid-in capital of the European Investment Bank, European Investment Fund and European Central Bank, the UK's share of fines decided up to 31 December 2020 (and fines resulting from ongoing procedures even if the fine are decided after 2020). I do not consider these items, partly because some of them will be outside the EU budget. See Part Five of the withdrawal agreement on financial provisions for full details.

- There will be no EU spending in the UK starting from 2021 beyond the €14.3 billion included in the RAL[15];
- There will be no customs duty revenues from EU imports from the UK (because eg the transition period which keeps the UK in the EU's customs union is extended, or a temporary or a permanent free trade agreement is signed).

My estimate for the total net contribution of the UK to the EU budget in 2021-2027 is therefore €19.8 billion.

5.2 Rebates

The Commission proposed to convert all kinds of rebates and other revenue corrections to a lump sum correction, with gradual reduction up to 2025 and elimination by 2026 (see pages 32-33 of European Commission, 2018b). In my calculations I consider three scenarios:

(1) Revenue corrections are abolished as of 1 January 2021 (except the corrections related to the security and citizenship opt-outs of Denmark and Ireland);
(2) Revenue corrections are gradually eliminated, as proposed by the European Commission (again, except the security and citizenship corrections for Denmark and Ireland);
(3) Revenue corrections remain in place in the full period of 2021-2027 (except the UK rebate and the rebates on the UK rebate).

Note that I have considered the UK rebate in 2021 after the UK's contribution to the EU budget in 2020 in the €19.8 billion lump-sum net payment by the UK as a result of Brexit in the previous section.

I keep the correction related to security and citizenship opt-outs of Denmark and Ireland in all three scenarios, because this is related to non-participation in certain programmes. Also, the resulting corrections are really minor. First, I calculated these corrections as shares of Danish and Irish GNI from 2014 to 2018 (without the compensating GNI-based contributions from all member states). I assumed that as a share of GNI, these corrections will remain the same in 2021-2027. Then I calculated the compensation according to projected GNI in 2021-2027.

5.3 National contributions based on GNI

The largest component of contributions to the EU budget is based on the distribution of member states' shares of EU GNI. This source of revenue acts as a balancing item: the gap between planned actual payments and all other sources of revenues is covered by contributions based on the share of EU GNI. Therefore, any new or increased EU own resource will reduce the GNI-based contributions. Whether a country contributes more or less to the EU budget after the introduction of a new revenue source will depend on whether its share of the distribution of the base of the new revenue source is higher or lower than its share of the distribution of GNI.

I assume that only euro-area members contribute to the euro-area budget, which explains why GNI-based contributions are 0.03 percentage points higher for euro-area countries than for non-euro countries.

[15] It is possible that the UK will participate in certain EU programmes after 2021. If such an agreement is signed, I presume that the UK will pay an additional contribution for its participation in these programmes, which will amount to at least the direct cost of the UK's participation, and possibly more. Since such participation and its financial consequences are uncertain, I do not consider them in my calculations.

5.4 VAT-based contributions

Instead of the current complicated system for calculating a harmonised VAT base for the purpose of deriving the VAT-based own resources, the Commission proposed a radically simplified method – which is sensible in my view. It only uses two data inputs per country: the VAT receipts collected and the standard VAT rate. EU countries apply reduced VAT rates to different degrees, but at least 45 percent of VAT revenue comes from products that are subject to the standard rate[16]. Therefore, 45 percent of actual VAT revenues are considered as coming from standard VAT rate products, so a measure of 'standard-rated receipts' is calculated as 0.45 times total VAT revenues. This is then divided by the standard rate to get a 'standard-rate taxable base'. This base is multiplied by the call rate, for which the Commission proposed values between 1 percent and 2 percent, leading to estimated revenues between €25 billion and €49 billion per year on average from 2021 to 2027. In my calculations I use the middle of this range, 1.5 percent. The source of VAT revenue data is Eurostat's 'Main national accounts tax aggregates [gov_10a_taxag]' dataset (which currently includes data up to 2018), while the standard VAT rates are listed in a Commission document[17].

For the projections, I assume that the 'standard-rate taxable base' increases at the same rate as GNI. For 2019-2021 I use the Autumn 2019 European Commission forecast for GNI, while for 2022-2024 I used the GDP forecast in the October 2019 IMF *World Economic Outlook*. For 2025-2027, I assumed that the 2024 forecast annual growth rate will remain unchanged.

As a result, I estimated that in 2021-2027, total VAT-based own resources will amount to €265.6 billion, which is very similar to the Commission's estimate, which is 7*(€25+€49)/2=€259 billion.

5.5 Traditional own resources: customs duties

The EU is a customs union with a common foreign trade policy, so it is sensible that customs duty revenues go to the EU budget. However, member states retain 20 percent of customs duty revenues as 'collection costs'.

For 2019-2027, I assumed that customs duties will increase at the same rate as the increase in total imports of goods[18]. I used the Autumn 2019 European Commission forecast for nominal import growth for 2019-2021, while for 2022-2024 I used the IMF real import growth forecast increased by the GDP deflator forecast (a separate import price forecast is not available). For 2025-2027, I assumed that the 2024 forecast annual growth rate will remain unchanged. The Commission proposed a reduction in the amount retained for 'collection costs' from 20 percent to 10 percent and I therefore used the 10 percent value in my calculations[19].

[16] From 2011 to 2015, the share of standard-rated goods varied between 46 percent and 99 percent in EU countries. See Box 2 in European Commission (2018b).

[17] See https://ec.europa.eu/taxation_customs/sites/taxation/files/resources/documents/taxation/vat/how_vat_works/rates/vat_rates_en.pdf.

[18] Note that 'total imports' includes imports from the EU (which are not subject to customs duties) and imports from outside the EU. I implicitly assume that imports from inside and outside the EU will grow at the same rate and there will be no compositional changes in imports from outside the EU (since different types of goods are subject to different tariff rates, and also the same type of good coming from different countries can be subject to different tariff rate because of free trade agreements and World Trade Organisation commitments).

[19] I note that 10 percent for collection costs would be still much higher than actual costs. In Darvas and Claeys (2018) we recommended a much more ambitious approach: reduce the retained value to the actual cost.

Up to 30 September 2017, when the production quotas for sugar ended, traditional customs duties also included sugar levies.

5.6 Common consolidated corporate tax base (CCCTB) based own resource

The Commission proposed a new own resource based on the CCCTB, to be implemented by 2023. It's prospects at time of writing are unclear, but I consider it in my calculations because it is included in the Commission's MFF proposal.

European Commission (2018b) calculated that a call rate of 1 percent would result in €4 billion in revenues on average from 2021 to 2027, while a 6 percent call rate would lead to average revenues of €23 billion. I assume that the middle of the range indicated, €13.5 billion per year, or €94.5 billion in total between 2021 and 2027, would be collected and distributed between member states. But since the CCCTB has not yet been adopted and no statistics are available on it, I distribute this amount between member states based on the distribution of forecast gross operating surplus of corporations (GOSC) between 2023 and 2027[20]. Data and forecasts for GOSC are available up to 2021 in the autumn 2019 Commission forecasts[21]: for 2022-2027, I assumed that it will increase at the same rate as GDP, for which I used the October 2019 IMF forecasts.

The distribution of GOSC is somewhat different from the distribution of GNI for some countries, while for most countries the differences are minor. Ireland has the largest positive gap (6.3 percent share in GOSC vs. 2.1 percent share in GNI), followed by the Netherlands (6.5 percent vs. 5.8 percent) and Romania (2.4 percent vs. 1.9 percent). The largest negative gap is for France (12.7 percent in GOSC vs. 17.4 percent in GNI), followed by Italy (10.6 percent vs. 12.0 percent) and Germany (24.2 percent vs. 25.1 percent). This implies that the introduction of this new own-resource will slightly reduce the contributions made by France, Italy and Germany (compared to the baseline of GNI-based contributions), and will increase somewhat the contributions made by Ireland, the Netherlands and Romania – provided, of course, that the distribution of CCCTB is similar to the distribution of GOSC.

5.7 Own resource based on EU emissions trading system (ETS) auction revenues

The Commission (2018a) proposed a new ETS-based own resource that would be calculated by multiplying an adjusted indicator of emissions allowances with the auction clearing price and a call rate. It estimated that the annual average revenue could vary between €1.2 billion and €3.0 billion per year in 2021-2027, depending on the carbon price and auction volumes. The base of this own resource, an adjusted indicator of allowances, would include only emissions allowances available for auctioning (based on 2005-2007 emissions) and would exclude allowances auctioned for aviation, allowances distributed to lower-income member states via the solidarity provisions and allowances related to the Modernisation Fund.

In my calculations, I assumed that the annual revenue will be in the middle of the range indicated by the Commission at €2.1 billion per year, or €14.7 billion in total for 2021-2027. The question is how to apportion this amount between the member states, because I could not find any document projecting the allocation of emissions allowances for 2021-2027. I have therefore used data on the actually auctioned allowances in 2018 as reported by the European Environment Agency's ETS data viewer[22]

[20] Here I consider 2023 as the first year, given the proposed introduction of CCCTB in 2023.

[21] Expect for Croatia (latest data is for 2012) and Luxembourg (latest data is for 2017). For these two countries, I assumed that GOSC grew the same rate as GNI over the periods of missing data.

[22] See https://www.eea.europa.eu/data-and-maps/dashboards/emissions-trading-viewer-1.

and adjusted them by the 'percentage increase of allowances to be auctioned' resulting from the solidarity mechanism for the member states concerned according to Table 1 of Marcu *et al* (2018).

France's contribution to the EU budget would be reduced most by the introduction of this new own resource, because its share of the total amount of adjusted emission allowances is less than half its share of EU GNI. Sweden and Germany would also see some reductions, while Poland would contribute more via this new own resource, relative to baseline GNI-based contributions.

5.8 Own resource based on non-recycled plastic packaging waste

The Commission (2018a) proposed a new own resource based on the volume of non-recycled plastic packaging waste. This would align a revenue source for the EU budget with the major EU goal of environmental protection and might encourage countries to reduce waste generation and recycle more.

The volume of plastic packaging waste generated in the EU26 (not including the UK and Croatia) increased from 12.2 million tonnes in 2005 to 14.4 million tons in 2017, while the share of this waste recycled increased from 25 percent to 42 percent over the same period[23]. European Commission (2018b) expects both of these trends to continue: higher volumes and higher recycling. The Commission (2018a) estimated that this new own resource could raise between €4 billion and €8 billion per year on average. I again assumed the middle of this range, €6 billion per year, or €42 billion for the full 2021-2027 period. Since I have no information to project the changes in volumes and recycling rates by member states, I attribute this amount to countries according to the distribution of non-recycled plastic packaging waste in 2016, the latest year for which data is available for all EU27 countries.

The largest positive gaps between share of the EU27's total volume of non-recycled plastic packaging waste and the share of EU GNI are in Italy, France and Poland (implying that these countries would pay more into the EU budget if this new own resource is introduced), while the largest negative gaps are in Germany, the Netherlands and Sweden.

5.9 Other revenues

Between 2014 and 2018, the EU annual budgets altogether collected €51.5bn in 'other revenue', including various fines paid to the EU and contributions from non-EU countries. It is difficult to predict such revenues, so I assume that they will remain the same as a share of GNI, implying a total of €79bn between 2021 and 2027.

5.10 Overall estimates for total revenues

The three panels of Table 5 show the overall results of my calculations under the three scenarios for the rebates. GNI- and VAT-based contributions would amount to 0.69 percent of EU GNI, customs revenues would contribute by 0.15 percent of GNI, while the three types of new own resources combined would add an additional 0.13 percent. The net revenue from Brexit (0.02 percent of GNI) and other revenues (fines and contributions by non-EU countries, equalling 0.07 percent), top up the EU's own resources to reach 1.06 percent of GNI, which is my estimate for actual payments under the Juncker Commission's proposal (European Commission, 2018a).

[23] Data source: Eurostat's 'Packaging waste by waste management operations and waste flow [env_waspac]' dataset.

6 Net balances

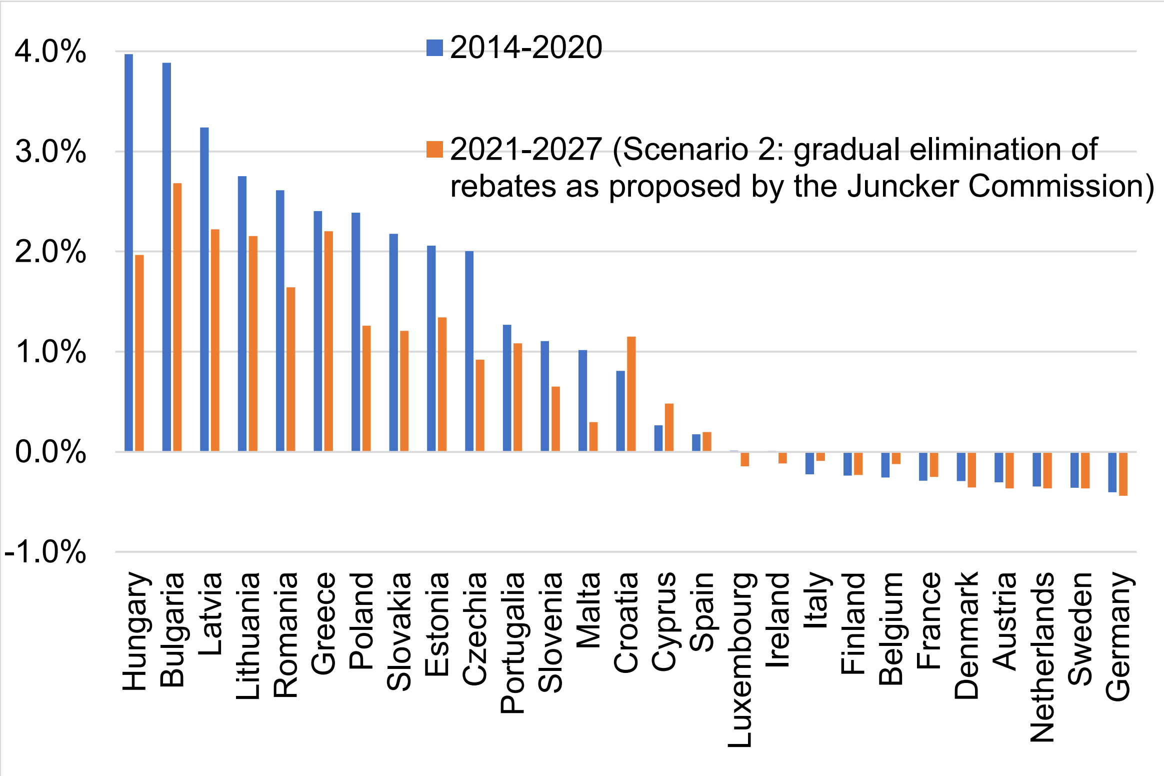
Table 5 sets out the implications of these various inputs for the OBB and NDB net balance indicators, under the three rebate scenarios. For the ease of comparison with the current MFF, the table reports average annual values in euros and as a share of GNI.

In scenario 2, in which rebates are gradually abolished as proposed by the Juncker Commission, the German and the Dutch net contributions would both increase by 40 percent in current price euros according to the OBB indicator, while their GNIs are expected to grow between 24-26 percent. Using the NDB indicator, Germany's net contribution would go up by 34 percent and the Dutch net contribution would go up by 47 percent (the reason for this difference is that the reduction of retained customs duty revenues from 20 percent to 10 percent would increase the total contributions arriving from the Netherlands, but reduce the total contributions arriving from Germany). Therefore, our calculations produce a different result from the more-than 100 percent increase for Germany and the 75 percent increase for the Netherlands reported in the *Financial Times* in October 2019 (Khan and Chazan, 2019), and attributed to government sources[24]. The 40 percent OBB increase has to be put into perspective: as a share of GNI, Germany's net contribution is expected to go up by 0.04 percentage points, while the Dutch contributions would be up by 0.02 percentage points. On the basis of the NDB indicator, Germany's net contribution would go up by 0.01 percentage points, while Dutch contributions would go up by 0.05 percentage points. Figure 7 shows the net-balance estimates for all EU27 countries.

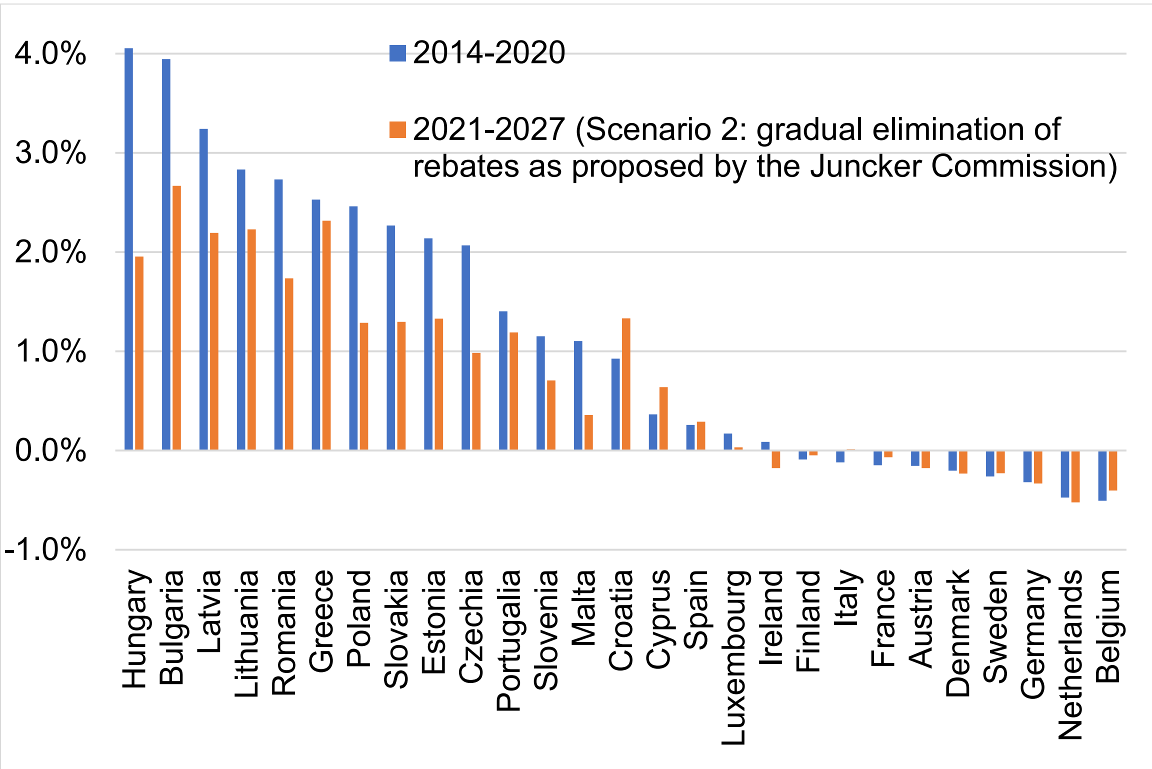
[24] Former budget commissioner Günther Oettinger refuted the 100 percent and 75 percent increase numbers as "*misleading figures*" (see Valero, 2019), but the Commission has not published its estimates for the net balances corresponding to its MFF proposal.

Figure 7: Net balances with the EU budget, 2014-2020 and 2021-2027 MFF based on the Juncker Commission proposal (% national GNI)

(A) Operating budgetary balance (OBB)



(B) Net direct balance (NDB)



Source: Bruegel.

Under scenario 1 – the complete elimination of all rebates after 1 January 2021 – the increase in Germany's net contribution would be between 0.04 and 0.07 percentage points of GNI, while the increase in Dutch contributions would be between 0.10 and 0.11 percentage points of GNI, depending on the indicator used. The values are similar for the other three EU27 net contributor countries that enjoy certain types of rebates, Austria, Denmark and Sweden.

For Luxembourg and Ireland, the sign of net balance would change. Both countries were net beneficiaries from 2014 to 2018 and are expected to be net beneficiaries for the full period of 2014-2020 according to my calculations, though at a relatively small scale (OBB just 0.01 percent of GNI for both countries, NDB 0.09 percent of GNI for Ireland and 0.17 percent for Luxembourg). Between 2021 and 2027, both countries would make net contributions of 0.12-0.15 percent of their GNI, under the Juncker Commission proposal (European Commission, 2018a).

All other countries are expected to retain their net beneficiary or net contributor status.

Six central and eastern European countries would receive about one percent of GNI less, namely Bulgaria, the Czech Republic, Lithuania, Poland, Romania and Slovakia. The biggest reduction would be for Hungary with a drop of about two percentage points of GNI in its net positive balance with the EU budget. However, from 2014 to 2020 Hungary had the largest net positive balance with the EU budget amounting to about 4 percent of GNI (section 2, Figure 1), much more than what other countries with similar levels of development received. The approximately two percent of GNI net transfer to Hungary would be still the fifth highest in the EU. The expected reduction in net EU funding in 2021-2027 compared to 2014-2020 would be somewhat less than one percent for Estonia, Latvia and Slovenia, while Croatia and Cyprus would receive somewhat more (as a share of GNI) in the next MFF than in the current MFF.

France's position would improve marginally (ie by 0.04 percentage points of GNI under OBB and by 0.08 percentage points of GNI under NDB, according to the Juncker Commission's proposal). Spain's net position would improve even less, while Greece and Portugal would face reductions of about 0.2 percentage points of GNI.

Overall, with the exception of central and eastern European countries, the changes in net balances (as a share of GNI) seem small.

References

D'Alfonso, Alessandro (2016) 'The UK 'rebate' on the EU budget. An explanation of the abatement and other correction mechanisms', *Briefing* PE 577.973, European Parliamentary Research Service, available at: http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/577973/EPRS_BRI(2016)577973_EN.pdf

Claeys, Grégory and Zsolt Darvas (2018) 'The Commission's proposal for the next MFF: A glass half-full', *Bruegel Blog*, 25 May, available at: https://bruegel.org/2018/05/the-commissions-proposal-for-the-next-mff-a-glass-half-full/

Darvas, Zsolt (2019a) 'Who pays for the EU budget rebates and why?' Bruegel Blog, 4 December, available at: https://bruegel.org/2019/12/who-pays-for-the-eu-budget-rebates-and-why/

Darvas, Zsolt (2019b) 'How much will the UK contribute to the next seven-year EU budget?' *Bruegel Blog*, forthcoming

Darvas, Zsolt, Konstantinos Efstathiou and Inês Gonçalves Raposo (2017), 'Divorce settlement or leaving the club? A breakdown of the Brexit bill', *Working Paper* 2017/03, Bruegel, available at: https://bruegel.org/2017/03/divorce-settlement-or-leaving-the-club-a-breakdown-of-the-brexit-bill/

European Commission (2018a) 'A Modern Budget for a Union that Protects, Empowers and Defends. The Multiannual Financial Framework for 2021-2027', COM(2018) 321 final, available at: https://ec.europa.eu/commission/sites/beta-political/files/communication-modern-budget-may2018_en.pdf

European Commission (2018b) 'Financing the EU budget: report on the operation of the own resources system. Accompanying the document, Proposal of a Council Decision on the system of Own Resources of the European Union', COMMISSION STAFF WORKING DOCUMENT, SWD(2018) 172 final, available at: https://ec.europa.eu/commission/sites/beta-political/files/staff-working-document-system-own-resources-may2018_en.pdf

European Commission (2019a) *EU budget 2018. Financial report*, available at: https://ec.europa.eu/info/sites/info/files/about_the_european_commission/eu_budget/financial_report_web.pdf

European Commission (2019b) 'Technical briefing on the EU's next long-term budget', 5 November, available at: https://ec.europa.eu/info/publications/technical-briefing-eus-next-long-term-budget_en

European Court of Auditors (2018) 'The Commission's proposal for the 2021-2027 Multiannual Financial Framework', 10 July, Briefing Paper, available at: https://www.eca.europa.eu/en/Pages/DocItem.aspx?did=46593

High Level Group on Own Resources (2016) *Future financing of the EU*, available at: https://ec.europa.eu/info/sites/info/files/about_the_european_commission/eu_budget/future-financing-hlgor-final-report_2016_en.pdf

Khan, Mehreen and Guy Chazan (2019) 'Germany's annual EU budget bill set to double to €33bn', 27 October, *Financial Times*, available at: https://www.ft.com/content/9c82433c-f846-11e9-a354-36acbbb0d9b6

Marcu, Andrei, Maciej Jakubik, Jean-Yves Caneill, Wijnand Stoefs, Domien Vangenechten and Michal Dlugosz (2018) 'Funding Mechanisms in the fourth phase of the EU ETS: exploring what is known and identifying issues for clarification and discussion', available at: https://www.ceep.be/report-funding-mechanisms-in-the-fourth-phase-of-the-eu-ets-exploring-what-is-known-and-identifying-issues-for-clarification-and-discussion/

Valero, Jorge (2019) 'Oettinger fires at 'misleading' EU budget figures', *Euractiv*, 30 October, available at: https://www.euractiv.com/section/eu-priorities-2020/news/oettinger-fires-at-misleading-eu-budget-figures/

Table 3: Comparison of actual payments in the 2014-2020 and 2021-2027 MFFs (€ millions and percent of GNI)

Unit	Category	EU28	EU27	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK
(A) 2014-20 MFF: administration, earmarked, other and non-EU expenditures are distrbuted among EU28																															
€	Total allocated payments w.o. admin	**844,888**	**796,368**	19,134	16,481	33,716	10,043	78,471	4,947	13,314	41,304	84,294	96,216	7,513	79,540	1,634	6,895	11,721	2,358	38,140	1,342	16,175	12,901	103,046	29,416	42,808	5,715	17,921	9,646	11,677	48,520
€	EU28 admin distributed by EU28 GNI	**57,450**	**48,451**	1,667	196	671	1,108	12,291	88	863	679	4,299	8,733	180	6,420	72	101	154	141	451	39	2,767	1,373	1,691	708	694	159	315	844	1,748	8,999
€	Earmarked, other and non-EU distributed by EU28 GNI	**143,813**	**121,286**	4,174	491	1,680	2,774	30,767	220	2,160	1,699	10,761	21,860	450	16,071	180	253	386	354	1,128	98	6,927	3,436	4,233	1,774	1,736	397	787	2,113	4,376	22,527
€	Total actual payments	**1,046,152**	**966,105**	24,976	17,167	36,067	13,926	121,529	5,255	16,336	43,683	99,355	126,809	8,144	102,030	1,887	7,248	12,262	2,853	39,719	1,479	25,869	17,710	108,970	31,898	45,238	6,271	19,022	12,603	17,801	80,047
%GNI	Total allocated payments w.o. admin	**0.78%**	**0.87%**	0.61%	4.46%	2.66%	0.48%	0.34%	2.98%	0.82%	3.22%	1.04%	0.58%	2.21%	0.66%	1.20%	3.62%	4.02%	0.88%	4.48%	1.82%	0.31%	0.50%	3.23%	2.20%	3.27%	1.91%	3.02%	0.61%	0.35%	0.29%
%GNI	EU28 admin distributed by EU28 GNI	**0.05%**	**0.05%**	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%
%GNI	Earmarked, other and non-EU distributed by EU28 GNI	**0.13%**	**0.13%**	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%	0.13%
%GNI	Total actual payments	**0.96%**	**1.06%**	0.79%	4.64%	2.85%	0.67%	0.52%	3.17%	1.00%	3.41%	1.22%	0.77%	2.40%	0.84%	1.39%	3.80%	4.21%	1.07%	4.67%	2.01%	0.50%	0.68%	3.41%	2.39%	3.46%	2.10%	3.20%	0.79%	0.54%	0.47%
(B) 2014-20 MFF: administration, earmarked, other and non-EU expenditures are distrbuted among EU27																															
€	Total allocated payments w.o. admin	**844,888**	**796,368**	19,134	16,481	33,716	10,043	78,471	4,947	13,314	41,304	84,294	96,216	7,513	79,540	1,634	6,895	11,721	2,358	38,140	1,342	16,175	12,901	103,046	29,416	42,808	5,715	17,921	9,646	11,677	48,520
€	EU28 admin distributed by EU27 GNI	**57,450**	**57,450**	1,977	232	796	1,314	14,574	104	1,023	805	5,097	10,355	213	7,612	85	120	183	168	534	46	3,281	1,628	2,005	840	822	188	373	1,001	2,073	0
€	Earmarked and other distributed by EU28 GNI; non-EU distributed by EU27 GNI	**143,813**	**130,478**	4,490	528	1,807	2,984	33,099	237	2,323	1,828	11,577	23,517	485	17,289	194	272	416	380	1,214	105	7,452	3,697	4,554	1,908	1,868	427	847	2,273	4,707	13,335
€	Total actual payments	**1,046,152**	**984,296**	25,602	17,241	36,319	14,342	126,143	5,288	16,660	43,938	100,969	130,088	8,211	104,441	1,914	7,286	12,320	2,906	39,888	1,494	26,908	18,225	109,605	32,164	45,498	6,330	19,141	12,920	18,457	61,855
%GNI	Total allocated payments w.o. admin	**0.78%**	**0.87%**	0.61%	4.46%	2.66%	0.48%	0.34%	2.98%	0.82%	3.22%	1.04%	0.58%	2.21%	0.66%	1.20%	3.62%	4.02%	0.88%	4.48%	1.82%	0.31%	0.50%	3.23%	2.20%	3.27%	1.91%	3.02%	0.61%	0.35%	0.29%
%GNI	EU28 admin distributed by EU27 GNI	**0.05%**	**0.06%**	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.00%
%GNI	Earmarked and other distributed by EU28 GNI; non-EU distributed by EU27 GNI	**0.13%**	**0.14%**	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.08%
%GNI	Total actual payments	**0.96%**	**1.08%**	0.81%	4.66%	2.87%	0.69%	0.54%	3.19%	1.02%	3.43%	1.24%	0.79%	2.42%	0.86%	1.41%	3.82%	4.23%	1.09%	4.69%	2.03%	0.52%	0.70%	3.43%	2.41%	3.48%	2.12%	3.22%	0.81%	0.56%	0.36%
(C) 2021-2027 MFF for EU27																															
€	Total allocated payments w.o. admin		**913,321**	26,495	20,201	31,612	11,728	99,276	5,639	15,145	46,422	101,964	115,348	9,666	94,384	2,737	8,297	12,982	3,314	34,985	1,363	22,543	15,468	98,171	33,192	52,498	6,360	16,840	12,327	14,362	*See note*
€	EU27 admin distributed by EU27 GNI		**72,191**	2,427	358	1,139	1,674	18,118	158	1,530	967	6,438	12,565	289	8,697	118	173	266	243	792	71	4,166	2,077	2,986	1,076	1,359	267	520	1,254	2,464	
€	Earmarked, other and non-EU distributed by EU27 GNI		**223,547**	7,516	1,108	3,526	5,185	56,106	488	4,737	2,993	19,936	38,908	895	26,932	366	535	823	753	2,453	221	12,900	6,433	9,246	3,332	4,208	826	1,610	3,882	7,630	
€	Total actual payments		**1,209,059**	36,438	21,666	36,277	18,587	173,500	6,285	21,412	50,381	128,338	166,821	10,849	130,014	3,221	9,005	14,072	4,310	38,231	1,655	39,609	23,979	110,402	37,600	58,065	7,453	18,970	17,463	24,456	
%GNI	Total allocated payments w.o. admin		**0.80%**	0.69%	3.56%	1.75%	0.44%	0.35%	2.26%	0.62%	3.03%	1.00%	0.58%	2.11%	0.68%	1.46%	3.03%	3.08%	0.86%	2.79%	1.21%	0.34%	0.47%	2.07%	1.95%	2.44%	1.50%	2.04%	0.62%	0.37%	
%GNI	EU27 admin distributed by EU27 GNI		**0.06%**	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	0.06%	
%GNI	Earmarked, other and non-EU distributed by EU27 GNI		**0.20%**	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	
%GNI	Total actual payments		**1.06%**	0.95%	3.82%	2.01%	0.70%	0.60%	2.52%	0.88%	3.29%	1.26%	0.84%	2.37%	0.94%	1.72%	3.29%	3.34%	1.12%	3.04%	1.46%	0.60%	0.73%	2.33%	2.20%	2.69%	1.76%	2.30%	0.88%	0.63%	
(D) Percent change from panel (B) to panel (C)																															
	Total allocated payments w.o. admin		**15%**	38%	23%	-6%	17%	27%	14%	14%	12%	21%	20%	29%	19%	67%	20%	11%	41%	-8%	2%	39%	20%	-5%	13%	23%	11%	-6%	28%	23%	
	Admin distributed by GNI		**26%**	23%	54%	43%	27%	24%	51%	50%	20%	26%	21%	35%	14%	38%	44%	45%	45%	48%	54%	27%	28%	49%	28%	65%	42%	39%	25%	19%	
	Earmarked, other and non-EU distributed by GNI		**71%**	67%	110%	95%	74%	70%	106%	104%	64%	72%	65%	85%	56%	89%	97%	98%	98%	102%	110%	73%	74%	103%	75%	125%	93%	90%	71%	62%	
	Total actual payments		**23%**	42%	26%	0%	30%	38%	19%	29%	15%	27%	28%	32%	24%	68%	24%	14%	48%	-4%	11%	47%	32%	1%	17%	28%	18%	-1%	35%	33%	
(E) Percent change in GNI from 2014-20 to 2021-2027																															
	GNI		**25%**	22%	53%	43%	27%	24%	51%	49%	20%	26%	21%	35%	14%	38%	44%	45%	45%	48%	54%	26%	27%	48%	28%	65%	41%	39%	25%	18%	22%
		EU28	**EU27**	**BE**	**BG**	**CZ**	**DK**	**DE**	**EE**	**IE**	**EL**	**ES**	**FR**	**HR**	**IT**	**CY**	**LV**	**LT**	**LU**	**HU**	**MT**	**NL**	**AT**	**PL**	**PT**	**RO**	**SI**	**SK**	**FI**	**SE**	**UK**

Source: Bruegel. Note: the 2014-2020 MFF does not include the European Development Fund, while the proposed 2021-2027 MFF includes it. This difference accounts for 0.03% of GNI. In the 2021-2027 MFF, EU spending in the UK (based on its share in outstanding budgetary commitments) is considered in non-EU spending.

Table 4a: Revenues of the 2021-2027 MFF, Scenario 1 – rebates abolished from 1 January 2021 (€ millions and percent of GNI)

	EU27	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE
GNI-based own resource	516,040	17,495	2,439	7,764	11,416	130,598	1,136	11,027	6,967	46,405	90,566	1,970	62,691	852	1,245	1,917	1,753	5,401	514	30,029	14,974	20,357	7,756	9,265	1,923	3,747	9,036	16,799
VAT-based own resource	265,468	8,432	1,724	4,712	6,831	69,801	769	3,963	3,586	21,584	47,198	1,700	25,928	682	753	1,090	1,492	3,166	343	14,291	8,475	11,774	4,486	4,966	1,085	1,991	5,077	9,569
Proposed phasing out of corrections	0																											
Compensation for proposed phasing out of corrections	0																											
Reduced VAT call rate	0																											
Compensation for reduced VAT call rate	0																											
Lump sum reduction for DK, NL & SE	0																											
Compensation for lump sum reduction for DK, NL & SE	0																											
FSJ adjustment for Denmark and Ireland	0	5	1	3	-93	41	0	-63	2	15	28	1	20	0	0	1	1	2	0	9	5	7	2	3	1	1	3	6
Total national contribution	**781,508**	**25,932**	**4,164**	**12,478**	**18,154**	**200,440**	**1,905**	**14,926**	**10,556**	**68,004**	**137,793**	**3,670**	**88,638**	**1,534**	**1,999**	**3,007**	**3,245**	**8,569**	**857**	**44,329**	**23,453**	**32,137**	**12,244**	**14,235**	**3,008**	**5,739**	**14,116**	**26,374**
Customs duties (100%)	197,107	22,503	1,153	3,036	3,858	45,458	406	3,582	2,092	15,953	19,011	491	20,262	281	493	1,140	220	2,633	146	28,997	2,289	9,492	2,152	2,451	997	1,131	1,512	5,368
10% retained as collection costs	19,711	2,250	115	304	386	4,546	41	358	209	1,595	1,901	49	2,026	28	49	114	22	263	15	2,900	229	949	215	245	100	113	151	537
Traditional own resources (90%)	**177,397**	**20,253**	**1,037**	**2,732**	**3,472**	**40,912**	**365**	**3,224**	**1,882**	**14,357**	**17,110**	**442**	**18,236**	**253**	**444**	**1,026**	**198**	**2,369**	**132**	**26,098**	**2,060**	**8,542**	**1,936**	**2,206**	**897**	**1,018**	**1,361**	**4,832**
CCCTB-based own resources	94,500	3,539	643	1,871	2,208	22,890	263	5,968	984	8,399	12,031	310	10,005	140	236	542	543	1,158	166	6,100	2,887	3,949	1,312	2,248	307	847	1,746	3,210
ETS-based own resources	14,700	496	315	583	245	3,479	129	183	581	1,496	1,072	74	1,886	27	34	72	24	230	16	656	272	1,134	297	614	72	214	327	174
Plastic-based own resources	42,000	1,008	266	502	712	8,085	253	920	599	4,321	8,395	167	6,623	32	131	87	101	1,100	58	1,267	1,027	2,758	1,144	968	91	300	476	610
Total new own resources	**151,200**	**5,043**	**1,223**	**2,955**	**3,165**	**34,454**	**645**	**7,072**	**2,164**	**14,216**	**21,497**	**551**	**18,513**	**199**	**401**	**701**	**667**	**2,487**	**240**	**8,022**	**4,187**	**7,841**	**2,752**	**3,830**	**471**	**1,360**	**2,549**	**3,994**
Total own resources	**1,110,104**	**51,228**	**6,425**	**18,166**	**24,791**	**275,806**	**2,915**	**25,222**	**14,602**	**96,578**	**176,400**	**4,663**	**125,388**	**1,986**	**2,844**	**4,734**	**4,111**	**13,426**	**1,229**	**78,450**	**29,700**	**48,521**	**16,933**	**20,270**	**4,376**	**8,117**	**18,026**	**35,200**
Brexit	19,830																											
Other revenue	79,124																											
Total revenue (= actual payments)	**1,209,059**	(← my estimation)																										
Total payment appropriations	**1,246,263**	(← from the MFF proposal; included here for information only)																										
Total commitment appropriations	**1,279,408**	(← from the MFF proposal; included here for information only)																										
% GNI values																												
GNI-based own resource	0.45%	0.45%	0.43%	0.43%	0.43%	0.45%	0.45%	0.45%	0.45%	0.45%	0.45%	0.43%	0.45%	0.45%	0.45%	0.45%	0.45%	0.43%	0.45%	0.45%	0.45%	0.43%	0.45%	0.43%	0.45%	0.45%	0.45%	0.43%
VAT-based own resource	0.23%	0.22%	0.30%	0.26%	0.26%	0.24%	0.31%	0.16%	0.23%	0.21%	0.24%	0.37%	0.19%	0.36%	0.27%	0.26%	0.39%	0.25%	0.30%	0.22%	0.26%	0.25%	0.26%	0.23%	0.26%	0.24%	0.26%	0.24%
All corrections	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total national contribution	0.68%	0.67%	0.73%	0.69%	0.68%	0.70%	0.76%	0.62%	0.69%	0.67%	0.69%	0.80%	0.64%	0.82%	0.73%	0.71%	0.84%	0.68%	0.76%	0.67%	0.71%	0.68%	0.72%	0.66%	0.71%	0.70%	0.71%	0.68%
Traditional own resources (90%)	0.15%	0.53%	0.18%	0.15%	0.13%	0.14%	0.15%	0.13%	0.12%	0.14%	0.09%	0.10%	0.13%	0.14%	0.16%	0.24%	0.05%	0.19%	0.12%	0.40%	0.06%	0.18%	0.11%	0.10%	0.21%	0.12%	0.07%	0.12%
Total new own resources	0.13%	0.13%	0.22%	0.16%	0.12%	0.12%	0.26%	0.29%	0.14%	0.14%	0.11%	0.12%	0.13%	0.11%	0.15%	0.17%	0.17%	0.20%	0.21%	0.12%	0.13%	0.17%	0.16%	0.18%	0.11%	0.17%	0.13%	0.10%
Total own resources	**0.97%**	**1.33%**	**1.13%**	**1.01%**	**0.93%**	**0.96%**	**1.17%**	**1.04%**	**0.95%**	**0.95%**	**0.89%**	**1.02%**	**0.91%**	**1.06%**	**1.04%**	**1.12%**	**1.07%**	**1.07%**	**1.09%**	**1.19%**	**0.90%**	**1.02%**	**0.99%**	**0.94%**	**1.03%**	**0.98%**	**0.91%**	**0.90%**
Brexit	0.02%																											
Other revenue	0.07%																											
Total revenue (= actual payments)	**1.06%**																											
Total payment appropriations	**1.09%**																											
Total commitment appropriations	**1.12%**																											
	EU27	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE

Source: Bruegel. Note: in the Juncker Commission's MFF proposal, total commitment ceiling amounts to €1,279,408, or 1.11% of GNI, while total payment appropriations ceiling amounts to €1,246,263, or 1.08% of GNI. I use the euro values from the MFF proposal but divide them by the most recent estimate of GNI (based on the IMF's October 2019 IMF and the European Commission's November 2019 forecasts), which is about 1 percent lower than the assumption used in the MFF proposal. This explains that the same euro values correspond to marginally higher ratios of GNI in my calculations, 1.12% and 1.09% of GNI, respectively. GNI-based contributions are 0.03% of GNI higher for euro-area members, because I assume that only euro-area members contribute to the euro budget.

Table 4b: Revenues of the 2021-2027 MFF, Scenario 2 – rebates gradually abolished as proposed by the Commission (€ millions and percent of GNI)

	EU27	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE
GNI-based own resource	516,040	17,495	2,439	7,764	11,416	130,598	1,136	11,027	6,967	46,405	90,566	1,970	62,691	852	1,245	1,917	1,753	5,401	514	30,029	14,974	20,357	7,756	9,265	1,923	3,747	9,036	16,799
VAT-based own resource	265,468	8,432	1,724	4,712	6,831	69,801	769	3,963	3,586	21,584	47,198	1,700	25,928	682	753	1,090	1,492	3,166	343	14,291	8,475	11,774	4,486	4,966	1,085	1,991	5,077	9,569
Proposed phasing out of corrections	-21,970				-530	-12,645														-5,687	-497							-2,611
Compensation for proposed phasing out of corrections	21,970	739	109	347	510	5,514	48	466	294	1,959	3,824	88	2,647	36	53	81	74	241	22	1,268	632	909	327	414	81	158	382	750
Reduced VAT call rate	0																											
Compensation for reduced VAT call rate	0																											
Lump sum reduction for DK, NL & SE	0																											
Compensation for lump sum reduction for DK, NL & SE	0																											
FSJ adjustment for Denmark and Ireland	0	5	1	3	-93	41	0	-63	2	15	28	1	20	0	0	1	1	2	0	9	5	7	2	3	1	1	3	6
Total national contribution	**781,508**	**26,671**	**4,273**	**12,825**	**18,133**	**193,309**	**1,953**	**15,392**	**10,850**	**69,963**	**141,617**	**3,758**	**91,285**	**1,570**	**2,051**	**3,088**	**3,319**	**8,810**	**879**	**39,911**	**23,589**	**33,046**	**12,572**	**14,648**	**3,089**	**5,897**	**14,498**	**24,513**
Customs duties (100%)	197,107	22,503	1,153	3,036	3,858	45,458	406	3,582	2,092	15,953	19,011	491	20,262	281	493	1,140	220	2,633	146	28,997	2,289	9,492	2,152	2,451	997	1,131	1,512	5,368
10% retained as collection costs	19,711	2,250	115	304	386	4,546	41	358	209	1,595	1,901	49	2,026	28	49	114	22	263	15	2,900	229	949	215	245	100	113	151	537
Traditional own resources (90%)	**177,397**	**20,253**	**1,037**	**2,732**	**3,472**	**40,912**	**365**	**3,224**	**1,882**	**14,357**	**17,110**	**442**	**18,236**	**253**	**444**	**1,026**	**198**	**2,369**	**132**	**26,098**	**2,060**	**8,542**	**1,936**	**2,206**	**897**	**1,018**	**1,361**	**4,832**
CCCTB-based own resources	94,500	3,539	643	1,871	2,208	22,890	263	5,968	984	8,399	12,031	310	10,005	140	236	542	543	1,158	166	6,100	2,887	3,949	1,312	2,248	307	847	1,746	3,210
ETS-based own resources	14,700	496	315	583	245	3,479	129	183	581	1,496	1,072	74	1,886	27	34	72	24	230	16	656	272	1,134	297	614	72	214	327	174
Plastic-based own resources	42,000	1,008	266	502	712	8,085	253	920	599	4,321	8,395	167	6,623	32	131	87	101	1,100	58	1,267	1,027	2,758	1,144	968	91	300	476	610
Total new own resources	**151,200**	**5,043**	**1,223**	**2,955**	**3,165**	**34,454**	**645**	**7,072**	**2,164**	**14,216**	**21,497**	**551**	**18,513**	**199**	**401**	**701**	**667**	**2,487**	**240**	**8,022**	**4,187**	**7,841**	**2,752**	**3,830**	**471**	**1,360**	**2,549**	**3,994**
Total own resources	**1,110,104**	**51,967**	**6,533**	**18,512**	**24,770**	**268,675**	**2,963**	**25,688**	**14,896**	**98,537**	**180,224**	**4,751**	**128,034**	**2,022**	**2,896**	**4,815**	**4,185**	**13,667**	**1,251**	**74,031**	**29,835**	**49,429**	**17,260**	**20,684**	**4,457**	**8,275**	**18,408**	**33,339**
Brexit	19,830																											
Other revenue	79,124																											
Total revenue (= actual payments)	**1,209,059**	(← my estimation)																										
Total payment appropriations	**1,246,263**	(← from the MFF proposal; included here for information only)																										
Total commitment appropriations	**1,279,408**	(← from the MFF proposal; included here for information only)																										
% GNI values																												
GNI-based own resource	0.45%	0.45%	0.43%	0.43%	0.43%	0.45%	0.45%	0.45%	0.45%	0.45%	0.45%	0.43%	0.45%	0.45%	0.45%	0.45%	0.45%	0.43%	0.45%	0.45%	0.45%	0.43%	0.45%	0.43%	0.45%	0.45%	0.45%	0.43%
VAT-based own resource	0.23%	0.22%	0.30%	0.26%	0.26%	0.24%	0.31%	0.16%	0.23%	0.21%	0.24%	0.37%	0.19%	0.36%	0.27%	0.26%	0.39%	0.25%	0.30%	0.22%	0.26%	0.25%	0.26%	0.23%	0.26%	0.24%	0.26%	0.24%
All corrections	0.00%	0.02%	0.02%	0.02%	0.00%	-0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	-0.07%	0.00%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	-0.05%
Total national contribution	0.68%	0.69%	0.75%	0.71%	0.68%	0.67%	0.78%	0.63%	0.71%	0.69%	0.71%	0.82%	0.66%	0.84%	0.75%	0.73%	0.86%	0.70%	0.78%	0.60%	0.72%	0.70%	0.74%	0.68%	0.73%	0.72%	0.73%	0.63%
Traditional own resources (90%)	0.15%	0.53%	0.18%	0.15%	0.13%	0.14%	0.15%	0.13%	0.12%	0.14%	0.09%	0.10%	0.13%	0.14%	0.16%	0.24%	0.05%	0.19%	0.12%	0.40%	0.06%	0.18%	0.11%	0.10%	0.21%	0.12%	0.07%	0.12%
Total new own resources	0.13%	0.13%	0.22%	0.16%	0.12%	0.12%	0.26%	0.29%	0.14%	0.14%	0.11%	0.12%	0.13%	0.11%	0.15%	0.17%	0.17%	0.20%	0.21%	0.12%	0.13%	0.17%	0.16%	0.18%	0.11%	0.17%	0.13%	0.10%
Total own resources	**0.97%**	**1.35%**	**1.15%**	**1.03%**	**0.93%**	**0.94%**	**1.19%**	**1.06%**	**0.97%**	**0.97%**	**0.90%**	**1.04%**	**0.93%**	**1.08%**	**1.06%**	**1.14%**	**1.09%**	**1.09%**	**1.11%**	**1.12%**	**0.91%**	**1.04%**	**1.01%**	**0.96%**	**1.05%**	**1.00%**	**0.93%**	**0.85%**
Brexit	0.02%																											
Other revenue	0.07%																											
Total revenue (= actual payments)	**1.06%**																											
Total payment appropriations	**1.09%**																											
Total commitment appropriations	**1.12%**																											
	EU27	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE

Source: Bruegel. Note: in the Juncker Commission's MFF proposal, total commitment ceiling amounts to €1,279,408, or 1.11% of GNI, while total payment appropriations ceiling amounts to €1,246,263, or 1.08% of GNI. I use the euro values from the MFF proposal but divide them by the most recent estimate of GNI (based on the IMF's October 2019 IMF and the European Commission's November 2019 forecasts), which is about 1 percent lower than the assumption used in the MFF proposal. This explains that the same euro values correspond to marginally higher ratios of GNI in my calculations, 1.12% and 1.09% of GNI, respectively. GNI-based contributions are 0.03% of GNI higher for euro-area members, because I assume that only euro-area members contribute to the euro budget.

Table 4c: Revenues of the 2021-2027 MFF, Scenario 3 – rebates remain (except UK rebate and rebates on UK rebate) (€ millions and percent of GNI)

	EU27	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE
GNI-based own resource	516,040	17,495	2,439	7,764	11,416	130,598	1,136	11,027	6,967	46,405	90,566	1,970	62,691	852	1,245	1,917	1,753	5,401	514	30,029	14,974	20,357	7,756	9,265	1,923	3,747	9,036	16,799
VAT-based own resource	265,468	8,432	1,724	4,712	6,831	69,801	769	3,963	3,586	21,584	47,198	1,700	25,928	682	753	1,090	1,492	3,166	343	14,291	8,475	11,774	4,486	4,966	1,085	1,991	5,077	9,569
Proposed phasing out of corrections	0																											
Compensation for proposed phasing out of corrections	0																											
Reduced VAT call rate	-46,831					-34900														-7145.7								-4784
Compensation for reduced VAT call rate	46,831	1,575	232	739	1,086	11,753	102	992	627	4,176	8,151	187	5,642	77	112	173	158	514	46	2,703	1,348	1,937	698	882	173	337	813	1,598
Lump sum reduction for DK, NL & SE	-9,153				-1178															-6298.3								-1677
Compensation for lump sum reduction for DK, NL & SE	9,153	308	45	144	212	2,297	20	194	123	816	1,593	37	1,103	15	22	34	31	100	9	528	263	379	136	172	34	66	159	312
FSJ adjustment for Denmark and Ireland	0	5	1	3	-93	41	0	-63	2	15	28	1	20	0	0	1	1	2	0	9	5	7	2	3	1	1	3	6
Total national contribution	**781,508**	**27,814**	**4,441**	**13,361**	**18,274**	**179,590**	**2,027**	**16,113**	**11,305**	**72,997**	**147,537**	**3,894**	**95,383**	**1,625**	**2,133**	**3,213**	**3,434**	**9,183**	**912**	**34,116**	**25,064**	**34,453**	**13,078**	**15,288**	**3,215**	**6,142**	**15,088**	**21,824**
Customs duties (100%)	197,107	22,503	1,153	3,036	3,858	45,458	406	3,582	2,092	15,953	19,011	491	20,262	281	493	1,140	220	2,633	146	28,997	2,289	9,492	2,152	2,451	997	1,131	1,512	5,368
10% retained as collection costs	19,711	2,250	115	304	386	4,546	41	358	209	1,595	1,901	49	2,026	28	49	114	22	263	15	2,900	229	949	215	245	100	113	151	537
Traditional own resources (90%)	**177,397**	**20,253**	**1,037**	**2,732**	**3,472**	**40,912**	**365**	**3,224**	**1,882**	**14,357**	**17,110**	**442**	**18,236**	**253**	**444**	**1,026**	**198**	**2,369**	**132**	**26,098**	**2,060**	**8,542**	**1,936**	**2,206**	**897**	**1,018**	**1,361**	**4,832**
CCCTB-based own resources	94,500	3,539	643	1,871	2,208	22,890	263	5,968	984	8,399	12,031	310	10,005	140	236	542	543	1,158	166	6,100	2,887	3,949	1,312	2,248	307	847	1,746	3,210
ETS-based own resources	14,700	496	315	583	245	3,479	129	183	581	1,496	1,072	74	1,886	27	34	72	24	230	16	656	272	1,134	297	614	72	214	327	174
Plastic-based own resources	42,000	1,008	266	502	712	8,085	253	920	599	4,321	8,395	167	6,623	32	131	87	101	1,100	58	1,267	1,027	2,758	1,144	968	91	300	476	610
Total new own resources	**151,200**	**5,043**	**1,223**	**2,955**	**3,165**	**34,454**	**645**	**7,072**	**2,164**	**14,216**	**21,497**	**551**	**18,513**	**199**	**401**	**701**	**667**	**2,487**	**240**	**8,022**	**4,187**	**7,841**	**2,752**	**3,830**	**471**	**1,360**	**2,549**	**3,994**
Total own resources	**1,110,104**	**53,111**	**6,702**	**19,049**	**24,911**	**254,956**	**3,037**	**26,408**	**15,351**	**101,570**	**186,144**	**4,887**	**132,132**	**2,077**	**2,978**	**4,940**	**4,300**	**14,040**	**1,284**	**68,236**	**31,311**	**50,836**	**17,767**	**21,324**	**4,583**	**8,520**	**18,999**	**30,650**
Brexit	19,830																											
Other revenue	79,124																											
Total revenue (= actual payments)	**1,209,059**	(← my estimation)																										
Total payment appropriations	**1,246,263**	(← from the MFF proposal; included here for information only)																										
Total commitment appropriations	**1,279,408**	(← from the MFF proposal; included here for information only)																										
% GNI values																												
GNI-based own resource	0.45%	0.45%	0.43%	0.43%	0.43%	0.45%	0.45%	0.45%	0.45%	0.45%	0.45%	0.43%	0.45%	0.45%	0.45%	0.45%	0.45%	0.43%	0.45%	0.45%	0.45%	0.43%	0.45%	0.43%	0.45%	0.45%	0.45%	0.43%
VAT-based own resource	0.23%	0.22%	0.30%	0.26%	0.26%	0.24%	0.31%	0.16%	0.23%	0.21%	0.24%	0.37%	0.19%	0.36%	0.27%	0.26%	0.39%	0.25%	0.30%	0.22%	0.26%	0.25%	0.26%	0.23%	0.26%	0.24%	0.26%	0.24%
All corrections	0.00%	0.05%	0.05%	0.05%	0.00%	-0.07%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	-0.15%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	-0.12%
Total national contribution	0.68%	0.72%	0.78%	0.74%	0.69%	0.63%	0.81%	0.66%	0.74%	0.72%	0.74%	0.85%	0.69%	0.87%	0.78%	0.76%	0.89%	0.73%	0.81%	0.52%	0.76%	0.73%	0.77%	0.71%	0.76%	0.75%	0.76%	0.56%
Traditional own resources (90%)	0.15%	0.53%	0.18%	0.15%	0.13%	0.14%	0.15%	0.13%	0.12%	0.14%	0.09%	0.10%	0.13%	0.14%	0.16%	0.24%	0.05%	0.19%	0.12%	0.40%	0.06%	0.18%	0.11%	0.10%	0.21%	0.12%	0.07%	0.12%
Total new own resources	0.13%	0.13%	0.22%	0.16%	0.12%	0.12%	0.26%	0.29%	0.14%	0.14%	0.11%	0.12%	0.13%	0.11%	0.15%	0.17%	0.17%	0.20%	0.21%	0.12%	0.13%	0.17%	0.16%	0.18%	0.11%	0.17%	0.13%	0.10%
Total own resources	**0.97%**	**1.38%**	**1.18%**	**1.06%**	**0.94%**	**0.89%**	**1.22%**	**1.09%**	**1.00%**	**1.00%**	**0.93%**	**1.07%**	**0.96%**	**1.11%**	**1.09%**	**1.17%**	**1.12%**	**1.12%**	**1.14%**	**1.03%**	**0.95%**	**1.07%**	**1.04%**	**0.99%**	**1.08%**	**1.03%**	**0.96%**	**0.78%**
Brexit	0.02%																											
Other revenue	0.07%																											
Total revenue (= actual payments)	**1.06%**																											
Total payment appropriations	**1.09%**																											
Total commitment appropriations	**1.12%**																											
	EU27	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE

Source: Bruegel. Note: in the Juncker Commission's MFF proposal, total commitment ceiling amounts to €1,279,408, or 1.11% of GNI, while total payment appropriations ceiling amounts to €1,246,263, or 1.08% of GNI. I use the euro values from the MFF proposal but divide them by the most recent estimate of GNI (based on the IMF's October 2019 IMF and the European Commission's November 2019 forecasts), which is about 1 percent lower than the assumption used in the MFF proposal. This explains that the same euro values correspond to marginally higher ratios of GNI in my calculations, 1.12% and 1.09% of GNI, respectively. GNI-based contributions are 0.03% of GNI higher for euro-area members, because I assume that only euro-area members contribute to the euro budget.

Table 5: Net balances in the 2014-2020 and 2021-2027 MFFs under alternative scenarios for the rebates (€ millions and percent of GNI)

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE
A) 2014-2020 MFF																											
Operating budgetary balance (OBB), € millions per year	-1,096	1,838	3,358	-832	-12,952	441	15	4,292	1,967	-6,582	367	-3,815	48	712	1,240	4	4,448	96	-2,459	-1,075	10,219	2,319	4,440	446	1,750	-521	-1,671
% GNI	-0.26%	3.89%	2.01%	-0.29%	-0.40%	2.06%	0.01%	2.41%	0.18%	-0.29%	0.81%	-0.23%	0.26%	2.75%	3.24%	0.01%	3.97%	1.02%	-0.35%	-0.30%	2.39%	1.27%	2.61%	1.11%	2.18%	-0.24%	-0.36%
Net direct balance (NDB), € millions per year	-2,155	1,866	3,466	-573	-10,238	458	185	4,515	2,910	-3,376	421	-2,013	66	732	1,242	61	4,538	104	-3,356	-543	10,525	2,565	4,649	466	1,824	-195	-1,219
% GNI	-0.50%	3.94%	2.07%	-0.20%	-0.32%	2.14%	0.09%	2.53%	0.26%	-0.15%	0.93%	-0.12%	0.36%	2.83%	3.24%	0.17%	4.05%	1.10%	-0.47%	-0.15%	2.46%	1.40%	2.73%	1.15%	2.27%	-0.09%	-0.26%
B) 2021-2027 MFF, Scenario 1 – rebates abolished from 1 January 2021																											
Operating budgetary balance (OBB), € millions per year	-544	2,191	2,433	-1,355	-19,282	488	-328	4,869	3,213	-6,526	768	-1,315	135	852	1,353	-68	3,567	52	-4,180	-1,706	8,659	2,698	5,123	406	1,448	-596	-2,351
% GNI	-0.10%	2.70%	0.94%	-0.36%	-0.47%	1.37%	-0.09%	2.22%	0.22%	-0.23%	1.17%	-0.07%	0.50%	2.18%	2.25%	-0.12%	1.99%	0.32%	-0.44%	-0.36%	1.28%	1.11%	1.66%	0.67%	1.23%	-0.21%	-0.42%
Net direct balance (NDB), € millions per year	-2,113	2,177	2,587	-886	-14,615	481	-544	5,111	4,537	-1,368	884	661	176	880	1,334	28	3,544	61	-5,549	-817	8,840	2,952	5,399	440	1,550	-81	-1,535
% GNI	-0.38%	2.69%	1.00%	-0.23%	-0.36%	1.35%	-0.16%	2.33%	0.31%	-0.05%	1.35%	0.03%	0.66%	2.25%	2.21%	0.05%	1.97%	0.38%	-0.59%	-0.17%	1.31%	1.21%	1.75%	0.73%	1.32%	-0.03%	-0.28%
C) 2021-2027 MFF, Scenario 2 – rebates gradually abolished as proposed by the Juncker Commission																											
Operating budgetary balance (OBB), € millions per year	-668	2,173	2,375	-1,352	-18,091	480	-406	4,820	2,886	-7,165	753	-1,757	129	843	1,339	-81	3,527	48	-3,443	-1,728	8,507	2,643	5,054	393	1,421	-659	-2,041
% GNI	-0.12%	2.68%	0.92%	-0.36%	-0.44%	1.34%	-0.12%	2.20%	0.20%	-0.25%	1.15%	-0.09%	0.48%	2.15%	2.22%	-0.15%	1.97%	0.30%	-0.36%	-0.37%	1.26%	1.08%	1.64%	0.65%	1.21%	-0.23%	-0.37%
Net direct balance (NDB), € millions per year	-2,218	2,162	2,538	-883	-13,596	475	-611	5,069	4,257	-1,915	871	283	171	873	1,322	18	3,509	58	-4,917	-837	8,710	2,906	5,340	428	1,528	-135	-1,269
% GNI	-0.40%	2.67%	0.98%	-0.23%	-0.33%	1.33%	-0.18%	2.32%	0.29%	-0.07%	1.33%	0.01%	0.64%	2.23%	2.20%	0.03%	1.96%	0.36%	-0.52%	-0.18%	1.29%	1.19%	1.73%	0.71%	1.30%	-0.05%	-0.23%
D) 2021-2027 MFF, Scenario 3 – rebates remain (except UK rebate and rebates on UK rebate)																											
Operating budgetary balance (OBB), € millions per year	-859	2,144	2,285	-1,375	-15,801	467	-526	4,744	2,379	-8,153	731	-2,441	120	829	1,318	-100	3,465	42	-2,475	-1,975	8,272	2,558	4,947	372	1,380	-758	-1,592
% GNI	-0.16%	2.65%	0.89%	-0.36%	-0.39%	1.31%	-0.15%	2.17%	0.16%	-0.29%	1.12%	-0.12%	0.45%	2.12%	2.19%	-0.18%	1.93%	0.26%	-0.26%	-0.42%	1.22%	1.05%	1.61%	0.62%	1.17%	-0.27%	-0.29%
Net direct balance (NDB), € millions per year	-2,382	2,138	2,461	-903	-11,637	464	-714	5,004	3,824	-2,760	852	-303	163	861	1,304	2	3,456	53	-4,090	-1,048	8,509	2,833	5,249	410	1,493	-219	-885
% GNI	-0.43%	2.64%	0.95%	-0.24%	-0.28%	1.30%	-0.21%	2.29%	0.26%	-0.10%	1.30%	-0.02%	0.61%	2.20%	2.17%	0.00%	1.93%	0.33%	-0.43%	-0.22%	1.26%	1.16%	1.71%	0.68%	1.27%	-0.08%	-0.16%
	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE

Source: Bruegel.

Bruegel, Rue de la Charité 33, B-1210 Brussels
(+32) 2 227 4210
info@bruegel.org
www.bruegel.org