The Red Cell

The Black Hole: The Impact of Brexit Upon the EU's Finances

William Norton

November 2017

www.theredcell.co.uk

The Black Hole

The Impact of Brexit upon the EU finances

Executive summary

The Commission

- The latest EU Budget figures indicate Brexit would create an €11 billion black hole in the EU's finances.
- If there is no UK/EU trade deal, then the European Commission will be able to stake a claim on an estimated €7.1 billion of new tariffs levied on imports from the UK - meaning the Commission will only have an immediate budget shortfall of some €3.8 billion.
- This may help explain why certain Commission officials do not appear to be treating a Brexit deal with much urgency; a stance based purely on narrow, short term self-interest.
- Introducing tariffs would be a poor solution by the Commission. These levies would only be a temporary fix (given trade diversion).
- Diplomats in Whitehall and the EU-27 national capitals need to be aware of this potential bias in some parts of Brussels, operating against the wider and deeper interest in reaching a Deal.
- Getting a grip will be especially important for those EU countries most likely to see their own exports to the UK market hard hit by reciprocal tariffs – Germany in particular.

National Winners and Losers

- There is an additional complication – the formula working out each country's contribution to the EU Budget, and how that changes after the UK is removed.
    - Unsurprisingly, most of the financial shortfall created by Brexit will be borne by the bigger, richer "usual suspect" net contributors.
    - Surprisingly, a significant bloc of countries are only relatively marginally affected in terms of their budget contributions whether a UK free trade deal is reached or not. What is of greater impact to the individual country outcomes is the mechanism adopted for filling the Black Hole: increased member contributions vs. spending cuts.
- Germany is much better off in immediate financial terms if the EU decides to close the Black Hole by reducing its spending, and couples this with a Free Trade Deal with the UK.
- In contrast, Italy and France are less badly hit if the EU opts to increase member contributions and does not reach a Deal with the UK.
- Spain will suffer badly in relative financial terms irrespective of which post-Brexit outcome is followed. It will either become a net contributor to the EU Budget or see its net receipts more or less eliminated. The country's least-worst results occur if the Black Hole is closed by increased member contributions.
- Ireland will also suffer fairly badly in relative terms whatever happens, but it will incur

absolutely punishing burdens if no UK-EU trade Deal is reached.

- The other major potential losers in relative terms are Belgium, Croatia and Cyprus. They are exposed to extremely heavy post-Brexit burdens depending upon which outcome is followed.

Overall

- Those pushing for a trade deal need to expose these relatively marginal short term interests. Getting a good Free Trade Agreement with the UK will be to everyone's long term benefit and generate wider wealth.
- Rather than introducing taxes on trade, EU citizens would be better off as consumers and taxpayers seeing reform on the EU budget.
- Some examples of opportunities can be gaged in other papers. Reformers should also be aware that these, too, have their own vested interests and lobbies. But Brexit provides a rare opportunity in Brussels to break these taboos.
- The other route, a demand for an €11 billion access bill for UK exporters, is a political nonsense (it is what is currently paid now, in return for full EU membership). An EU budget gap or shift is inevitable.
- It is outside the scope of this paper to query whether the demand that the UK agree to pay a €50 billion "divorce fee" is designed to evade hard choices over the EU Budget. Even if that were so, any such penalty payment would merely defer resolution of the structural deficit within the EU budget with which this paper is concerned.
- The political reality is that the EU does not face a cliff-edge binary choice between increasing its members' contributions and cutting spending. In the end, a compromise somewhere in the middle will in all likelihood be reached. What the findings of this paper indicate, however, is that the attractiveness of a compromise to any member of the EU is affected by whether or not there is at the same time a trade deal with the UK.
- This gives a far more nuanced understanding of the ongoing Brexit negotiations, because how the EU intends to fill the Black Hole becomes a factor. The fate of a UK/EU Deal for tariff-free access to the Single Market may not depend on anything which the UK does or offers. It is just as likely to be influenced by arguments between the EU Commission and key member states as to how much spending the EU will undertake, and how it will be financed.

Introduction: the Black Hole

The EU is constitutionally required to operate a balanced budget.[1] The practice has developed for a Multiannual Financial Framework ("MFF") to be agreed periodically, in which the member states and the Commission set spending ceilings for various EU programmes and make long-term funding commitments. Within each MFF an annual budget dictates how much will be spent and allocates the burden among the member states. The current MFF runs from 2014 to 2020, i.e. straddling the point at which Brexit is expected to occur. It was, of course, agreed before it was known that Brexit would become a reality.

The Draft Budget for 2018 anticipates a requirement for €145 billion, analysed in Table 1 below with the 2017 figures for comparison, from which it can be seen that it represents an 8% increase in cash requirement.

Table 1: Anticipated EU spending in Draft Budget 2018

	Budget 2017		Draft Budget 2018	
Programme	Commitments (EUR m)	Payments (EUR m)	Commitments (EUR m)	Payments (EUR m)
(1) Smart and inclusive growth	75,398.8	56,521.8	77,249.2	66,845.9
of which				
(a) Competitiveness for growth and jobs	21,312.2	19,320.9	21,841.3	20,082.4
(b) Economic, social and territorial cohesion	54,086.6	37,200.8	5,407.9	46,763.5
(2) Sustainable growth: natural resources	58,584.4	54,914.0	59,553.5	56,359.8
(3) Security and citizenship	4,284.0	3,787.0	3,473.1	2,963.8
(4) Global Europe	10,162.1	9,483.1	9,593.0	8,951.0
(5) Administration	9,394.5	9,394.6	9,682.4	9,685.0
of which				
Administration of the institutions	7,418.9	7,419.0	7,591.2	7,593.8
Other special instruments	604.3	460.4	1,090.9	619.6
TOTAL	**158,428.1**	**134,560.9**	**160,642.1**	**145,425.1**

Source: "Statement of estimates of the European Commission for the financial year 2018", summary of Table in section 3.2 on page 14
"Other special instruments" are the Emergency Aid Reserve, the European Globalisation Adjustment Fund and the European Union Solidarity Fund, which actually fall outside the ceilings agreed in the MFF.

Table 2 below sets out how the Commission intends to finance this cash requirement. The overwhelming bulk, over 90%, represents "EU Own resources", i.e. contributions to the EU earmarked by the member states. The largest single income stream for the EU is the payments which member states make in line with their Gross National Income ("GNI"), i.e. pro rata to a measure of their relative national prosperity, subject to rebates and corrections as between the members. A comprehensive breakdown of the Own Resources contributions of each member state is given in Appendix A1, and an explanation of the various elements of the EU's finances is given in Appendix B1.

[1] Treaty on the Functioning of the European Union, Article 310(1).

Table 2: Anticipated financing of the Draft Budget 2018

Income stream	Budget 2017 (EUR m)	Draft Budget 2018 (EUR m)
Own Resources:		
(a) Sugar levies	133.30	-
(b)Customs duties	21,333.70	22,844.00
(c) VAT	16,598.94	17,249.56
(d) GNI	87,247.51	103,477.27
	125,313.45	143,570.83
Surpluses, balances and adjustments	6,404.53	-
Revenue accruing from EU staff	1,490.26	1,547.79
Revenue accruing from the EU administrative operation	70.20	45.05
Contributions and refunds for EU programmes	60.00	110.00
Interest on late payments and fines	1,120.00	120.00
Borrowing and lending operations	6.93	6.44
Miscellaneous revenue	25.00	25.00
TOTAL	**134,490.37**	**145,425.11**

Source: "Statement of estimates of the European Commission for the financial year 2018", summary of Table in section 1 on page 556
For advance budgeting purposes, the EU Commission assumes that sugar levies and surpluses provide a *de minimis* contribution. Sugar levies are being discontinued from 2018.

Draft Budget 2018 "*does not take into account any possible impact of the United Kingdom's withdrawal from the EU, notified in March 2017*".[2] Given that Brexit is highly unlikely to occur during 2018, that is not unreasonable. However, given the strict two year deadline imposed by Article 50, Brexit is quite likely to occur at some point within the 2014-2020 MFF.

The UK has been a consistent net contributor to the EU Budget.[3] According to Draft Budget 2018, the gross UK contribution is forecast to be €18.3 billion.[4] There can be no certainty as to the precise division of EU spending between member states for any year until after it has closed, but it is reasonable to forecast that for 2018, the UK will receive approximately €7.3 billion from the EU.[5] Brexit would therefore create a €11 billion financing gap within Draft Budget 2018, which at 7.6% of the total budgeted spend is clearly a material impact. It is highly pertinent to ask how the EU will respond to this shortfall.

In her speech in Florence on 22nd September 2017, the UK Prime Minister, Theresa May, stressed that her negotiating partners need have no fear. There is no danger whatsoever to the current MFF:

> *But in this context I am conscious that our departure causes another type of uncertainty for the remaining member states and their taxpayers over the EU budget.*
>
> *Some of the claims made on this issue are exaggerated and unhelpful and we can only resolve*

[2] Source: *Statement of estimates of the European Commission for the financial year 2018*, Section 1.1, page 127. However, it does say that the Budget has been framed to allow for "*a specific task force to deal with the triggering by the United Kingdom of Article 50 of the EU Treaty*" (page 87).
[3] Since joining in 1973, there has only been one year, 1975, in which the UK has been a net recipient from the EU – and that is because, under the accession terms, the UK's contributions were phased in gradually, i.e. we were paying less than we should otherwise have done.
[4] See Table A1.1 in Appendix A1.
[5] See Appendix B2 for the derivation of this estimate.

this as part of the settlement of all the issues I have been talking about today.

Still I do not want our partners to fear that they will need to pay more or receive less over the remainder of the current budget plan as a result of our decision to leave. The UK will honour commitments we have made during the period of our membership.[6]

There will be no Black Hole because the UK will more or less pay up whatever net contribution it would have made when it agreed to the 2014-2010 MFF under David Cameron's premiership. This has been presented as an act of spectacular goodwill in order to unblock the Brexit negotiations. It could also be seen as equivalent to paying a penalty to get out of a bad phone contract.

All that Theresa May's Florence Offer achieves is to defer these problems to the next MFF. The issue remains live. Does the EU intend to continue with its current level of expenditure after 2020, even though that depends upon a substantial net contribution from the UK which is no longer available? Given the constitutional framework, there would appear to be only two possible responses:

- Option (I): the other EU-27 will have to contribute more, in order to maintain the current budgeted expenditure level
- Option (II): budgeted expenditure will have to be scaled back to the lower level of revenue

(Strictly, there is an Option (III): find an alternative source of funds which plugs the gap without having to ask any of the EU-27 to contribute more, or having to cut spending. It is outside the scope of this paper to query whether that is the motive behind the demand that the UK agree to pay a €50 billion "divorce fee" before the EU will enter negotiations about any post-Brexit relationship. Even if that were so, any such payment would represent a one-off windfall which could not be carried forward beyond the MFF in which it was received. Such a penalty payment would merely defer resolution of the structural deficit within the EU budget with which this paper is concerned.)

This paper considers the implications of Option (I) and Option (II), using Draft Budget 2018 as its template, re-running it to study how the parties would have responded to the absence of the UK and the emergence of the Black Hole. In doing so, it makes one fundamental planning assumption: that post-Brexit, the EU spends no resources in the UK, and therefore it reduces its total expenditure by the amount which would otherwise have been allocated to the UK.

(In practice, it is quite likely that a post-Brexit UK will continue to participate in some EU programmes in the way that non-EU member states do at present. However, in those circumstances, the UK would be contributing to the EU through a separate revenue stream. For the purposes of this paper it is assumed that this is completely budget-neutral: there is a direct matching between expense and income and they are additional to the new, reduced core activity. Hence it has no impact on how the EU finances itself post-Brexit.)

In particular, this paper makes no assumption about whether there is a UK/EU deal for tariff-free access to the Single Market. Instead, two contrasting situations are modelled: in which there is a comprehensive deal which permits all UK goods to enter the Single Market free of tariffs; and in which there is no deal and all imports from the UK are subject to whatever tariff is levied by the EU.

It is possible to derive an estimate of how much would be contributed to the EU own resources in the event of the No Deal scenario: €7.1 billion.[7] This figure is probably an over-estimate but either way,

[6] Full text of the speech is available at < https://www.gov.uk/government/speeches/pms-florence-speech-a-new-era-of-cooperation-and-partnership-between-the-uk-and-the-eu> (accessed 1/11/17).
[7] See Appendix B3.

this revenue source makes a material difference to the size of the Black Hole and how the EU (and its individual member states) would react to it.

Table 3: Estimates of the EU Budget Black Hole in different situations

	Deal (EUR m)	No Deal (EUR m)
Projected UK Gross Contribution	18,267.5	18,267.5
Less		
Projected EU spending in UK	- 7,299.2	- 7,299.2
Less		
Projected post-Brexit customs duties	-	- 7,139.0
Black Hole	10,968.25	3,829.20

The revenues raised by customs duties on UK exports are not "free money" and they would legitimately count as contributions to own resources. After all, the revenue is ultimately being paid by the citizens and businesses of the individual countries in which it is being raised. But from the perspective of 27 separate Finance Ministries there is a clear and obvious difference if nearly two-thirds of a €11 billion Black Hole is handed to you on a plate, without having to undergo the rigours of the EU MFF rules – or without it apparently being any of your fault.

As we shall see, this factor may affect the attitude of the national governments to other matters. It may also affect attitudes within the EU Commission, where staff are spared the vulgarity of having to answer immediately to the citizens and businesses who would be financing this revenue.

Option (I): member states contribute more

Under this approach, member states receive back from the EU the same as they would have done without Brexit and what alters is the distribution of the extra contributions each pays. Draft Budget 2018 is used as a template to illustrate the impact of the changes.

If there is a UK/EU Deal, there will be no extra customs revenue and the whole of the €11 billion Black Hole is financed through the GNI-related own resource. There is no material change to the relative contribution shares paid by each of the EU-27. (There is a very slight shift in the burden towards the more prosperous member states, but it is not significant.)

However, the position is somewhat different in the No Deal scenario. UK exports, in particular exports of commodities which would suffer the highest tariff rates, are not distributed evenly across the EU-27. That leads to an uneven distribution of the extra burden. Ireland is hit relatively heavily, and Spain sees its net recipient status more or less wiped out.

The outcomes for each member state are given in Appendix B4 and a comparison of the results for the two alternative situations is given in Table 4.

Table 4: Summary outcomes for member states under Option (I) – member states pay more to EU

	Pre-Brexit Balance (EUR m)	Post-Brexit Option (I) Balance Deal (EUR m)	No Deal (EUR m)	Impact of UK/EU Deal (EUR m)	
Belgium	839.4	547.3	723.9	- 176.6	worse off
Bulgaria	1,997.7	1,964.7	1,974.8	- 10.1	worse off
Czech Republic	3,992.3	3,874.7	3,887.7	- 12.9	worse off
Denmark	- 1,232.5	- 1,428.1	- 1,428.8	0.7	better off
Germany	- 18,349.2	- 22,115.8	- 21,968.1	- 147.7	worse off
Estonia	327.7	312.6	319.6	- 7.1	worse off
Ireland	- 505.8	- 665.3	- 2,131.1	1,465.8	better off
Greece	4,972.4	4,848.9	4,882.8	- 34.0	worse off
Spain	826.4	38.8	7.9	30.9	better off
France	- 7,920.5	- 9,487.5	- 9,100.2	- 387.3	worse off
Croatia	128.4	96.7	113.9	- 17.1	worse off
Italy	- 5,027.6	- 6,176.0	- 5,690.7	- 485.2	worse off
Cyprus	57.6	45.4	20.3	25.2	better off
Latvia	749.8	731.4	743.1	- 11.7	worse off
Lithuania	960.5	933.5	942.5	- 9.1	worse off
Luxembourg	1,335.0	1,309.1	1,325.2	- 16.1	worse off
Hungary	4,985.4	4,904.1	4,906.1	- 2.0	worse off
Malta	92.6	85.7	76.1	9.7	better off
Netherlands	- 5,202.5	- 6,006.6	- 6,258.1	251.5	better off
Austria	- 1,547.4	- 1,959.6	- 1,825.0	- 134.7	worse off
Poland	10,896.0	10,588.8	10,630.8	- 42.0	worse off
Portugal	1,976.1	1,849.2	1,872.8	- 23.6	worse off
Romania	4,593.6	4,470.6	4,505.9	- 35.2	worse off
Slovenia	606.5	578.4	593.1	- 14.8	worse off
Slovak Republic	1,913.4	1,856.6	1,866.8	- 10.2	worse off
Finland	- 864.0	- 1,012.9	- 932.7	- 80.2	worse off
Sweden	- 2,469.2	- 3,020.9	- 2,894.6	- 126.2	worse off

Net contributors to the EU indicated in red.

Under Option (I) every one of the EU-27 is worse off, because they all have to contribute more to cover the Black Hole in the EU budget. But twenty-one of the EU-27 are left even worse off if there is a UK/EU deal granting tariff-free access to the Single Market, because they lose the benefit of the additional customs revenue on goods imported from the UK (which might be being disproportionately funded by the citizens of other member states, leaving less of the shortfall to be shared out according to the relative GNI of every country).

Whether and to what extent this affects the attitude these countries take towards the Brexit negotiations with the UK is unclear. A clear majority of the differences either way are comparatively trivial, although of course smaller sums have greater significance for smaller countries.

Moreover, such a narrow, short-termist approach fails to the capture the fact that in the No Deal scenario, the exporters in those countries would now be exposed to corresponding tariffs on goods sold into the UK. It is outside the scope of this paper to analyse such missing costs, but it must be the case that in the final reckoning some of these twenty-one countries would suffer a far worse balance of payments position in the No Deal scenario. However, were that to be the case, we can easily imagine that it could be used as the basis for an argument that the remedy is an EU-wide programme of mitigation and quasi-compensation – the cost of which would presumably be disproportionately borne by the "relative winners".

Option (II): the EU spends less

Under this approach, EU spending is scaled back by an amount equal to the estimated amount allocated to the UK plus whatever else is required to eliminate the Black Hole. Member states will therefore receive back a smaller amount than would have been the case before Brexit. However, because the top-slice of EU spending is financed through the GNI-related element of own resources, the final level of expenditure will also affect the relative contributions of the remaining EU-27. Furthermore, the availability of additional customs revenue on goods imported from the UK could support a higher post-Brexit level of EU expenditure – if there is No Deal with the UK.

In simple terms, this becomes a choice between whether the EU's currently planned expenditure has to be reduced by an amount equal to the UK gross contribution, and whether an amount higher than this can be maintained and financed by extra customs duties. Therefore, Option (II) does not avoid the tension over UK access to the Single Market discussed previously under Option (I), and the two rival Deal/No Deal scenarios still have to be considered.

It is assumed that the expenditure reductions take effect proportionately across programmes and countries, i.e. that the programmes retain the same share of the budget, and member states receive the same relative proportion of spending, as would have been the case under Draft Budget 2018. (In practice there is likely to be a bias in favour of perceived need or other political priorities, but in the context of this paper this is the only practicable planning assumption available.) The combination of the uneven distribution of customs revenue and reduced receipts leads to a quirky set of results. Spain becomes a net contributor to the EU in either scenario.

The outcomes for each member state are given in Appendix B5 and a comparison of the results for the two alternative situations is given in Table 5.

Table 5: Summary outcomes for member states under Option (II) – the EU spends less

	Pre-Brexit Balance (EUR m)	Post-Brexit Option (II) Balance Deal (EUR m)	No Deal (EUR m)	Impact of UK/EU Deal (EUR m)	
Belgium	839.4	25.8	310.8	- 285.0	worse off
Bulgaria	1,997.7	1,689.7	1,796.5	- 106.8	worse off
Czech Republic	3,992.3	3,295.5	3,496.4	- 200.9	worse off
Denmark	- 1,232.5	- 1,369.7	- 1,458.6	88.9	better off
Germany	- 18,349.2	- 20,740.4	- 21,859.4	1,119.0	better off
Estonia	327.7	261.1	283.4	- 22.2	worse off
Ireland	- 505.8	- 691.5	- 2,199.2	1,507.7	better off
Greece	4,972.4	4,159.5	4,422.5	- 263.0	worse off
Spain	826.4	- 573.3	- 622.4	49.2	better off
France	- 7,920.5	- 9,292.2	- 9,493.5	201.3	better off
Croatia	128.4	61.1	81.8	- 20.7	worse off
Italy	- 5,027.6	- 6,194.9	- 6,077.7	- 117.3	worse off
Cyprus	57.6	30.5	7.2	23.3	better off
Latvia	749.8	624.8	672.1	- 47.4	worse off
Lithuania	960.5	792.0	847.5	- 55.5	worse off
Luxembourg	1,335.0	1,128.1	1,206.4	- 78.3	worse off
Hungary	4,985.4	4,228.7	4,468.0	- 239.4	worse off
Malta	92.6	69.7	64.0	5.6	better off
Netherlands	- 5,202.5	- 5,677.7	- 6,215.5	537.8	better off
Austria	- 1,547.4	- 1,866.1	- 1,847.8	- 18.3	worse off

	Pre-Brexit Balance (EUR m)	Post-Brexit Option (II) Balance Deal (EUR m)	No Deal (EUR m)	Impact of UK/EU Deal (EUR m)	
Poland	10,896.0	9,020.0	9,574.7	- 554.7	worse off
Portugal	1,976.1	1,530.1	1,636.9	- 106.8	worse off
Romania	4,593.6	3,832.8	4,077.1	- 244.3	worse off
Slovenia	606.5	481.6	524.9	- 43.4	worse off
Slovak Republic	1,913.4	1,584.9	1,682.7	- 97.8	worse off
Finland	- 864.0	- 977.7	- 959.9	- 17.8	worse off
Sweden	- 2,469.2	- 2,805.3	- 2,871.6	66.2	better off

Net contributors to the EU indicated in red.

As expected, the requirement to fill the Black Hole means that no country is better off compared to its pre-Brexit position. As with Option (I), a majority of EU-27 members (eighteen) would have a better financial outcome if there were No Deal giving the UK tariff-free access to the Single Market. All of the six countries which would prefer a Deal under Option (I) would also be better off under the Deal scenario for Option (II). That should at least lead to some consistency in negotiating stance on this issue. However, it may be more significant that under Option (II) the "relative winners" from a Deal (i.e. those who lose out less from Brexit if a Deal is concluded with the UK) now include Germany and France, the two major remaining net contributors to the EU Budget.

It is possible to derive estimates of the impact of Brexit upon individual spending programmes. These are set out in Table 6. The Option I column simply removes spending on the UK, assessed using historic data on the extent to which the UK has participated in each programme, i.e. it does not affect the remaining EU-27. But other countries will be affected by the reductions required under either of the Option II scenarios. The Option II spending reductions are additional to the savings created by UK withdrawal but alternative, e.g. the Large Infrastructure Projects budget is assumed to fall by €67.5 million in any event, and the further reduction under Option II is either €48.8 million or €139.6 million, depending on the size of the Black Hole which has to be covered.

The implications for the EU-27 may be gauged by illustrative examples, drawn from already announced spending commitments. A potential casualty list will be provided in a separate, short paper.

Table 6: Post-Brexit EU expenditure reductions under Option II.

		2018 Draft Budget	Option I	Option II	
			(UK withdrawal)	NO DEAL	DEAL
		(EUR m)	(EUR m)	(EUR m)	(EUR m)
1	**SMART AND INCLUSIVE GROWTH**				
1.1	Competitiveness for growth and jobs				
1.1.1	Large infrastructure projects	1,826.2	- 67.5	- 48.8	- 139.6
	European Fund for Strategic Investments (EFSI)	1,828.0	-	- 50.7	- 145.2
1.1.2	Nuclear decommissioning assistance programmes	152.4	-	- 4.2	- 12.1
1.1.3	Common Strategic Framework (CSF) Research and Innovation	11,216.9	- 1,042.6	- 282.1	- 807.9
1.1.4	Programme for the Competitiveness of Enterprises and small and medium-sized enterprises (COSME)	253.5	- 9.4	- 6.8	- 19.4
1.1.5	The Union Programme for Education, Training, Youth and Sport (Erasmus+)	2,133.6	- 113.5	- 56.0	- 160.4
1.1.6	European Union Programme for Employment and Social Innovation (EaSI)	118.5	- 6.6	- 3.1	- 8.9
1.1.7	Action Programmes for customs, for taxation and for anti-fraud in the European Union (Customs 2020, Fiscalis 2020 and Anti-Fraud)	124.8	- 0.6	- 3.4	- 9.9
1.1.8	Connecting Europe Facility (CEF)	1,523.0	- 26.1	- 41.5	- 118.9
1.1.9	Energy projects to aid economic recovery (EERP)	210.0	- 15.1	- 5.4	- 15.5
	European Solidarity Corps	55.7	-	- 1.5	- 4.4
1.1.DAG	Decentralised agencies	317.7	- 13.4	- 8.4	- 24.2
1.1.OTH	Other actions and programmes	153.5	- 7.4	- 4.0	- 11.6
1.1.PPA	Pilot projects and preparatory actions	51.8	- 0.8	- 1.4	- 4.1
1.1.SPEC	Actions financed under the prerogatives of the Commission and specific competences conferred to the Commission	116.9	- 9.8	- 3.0	- 8.5
1.2	Economic, social and territorial cohesion				
1.2.1	Investment for growth and jobs	43,592.4	- 1,663.5	- 1,162.4	- 3,329.5
0	Connecting Europe Facility CEF	625.8	- 0.2	- 17.3	- 49.7
1.2.2	European territorial cooperation	1,325.2	- 75.2	- 34.7	- 99.3
1.2.3	Technical assistance and innovative actions	204.1	- 2.4	- 5.6	- 16.0
1.2.4	Fund for European Aid to the Most Deprived	401.4	- 0.2	- 11.1	- 31.9

		2018 Draft Budget (EUR m)	Option I (UK withdrawal) (EUR m)	Option II NO DEAL (EUR m)	Option II DEAL (EUR m)
1.2.5	Youth Employment Initiative (specific top-up allocation)	600.0	- 31.3	- 15.8	- 45.2
1.2.PPA	Pilot projects and preparatory actions	14.6	-	- 0.4	- 1.2
2	**SUSTAINABLE GROWTH: NATURAL RESOURCES**				
2.0.1	European Agricultural Guarantee Fund (EAGF) - Market related expenditure and direct payments	43,472.5	- 3,187.1	- 1,116.8	- 3,199.0
2.0.2	European Agricultural Fund for Rural Development (EAFRD)	11,852.2	- 663.2	- 310.2	- 888.5
2.0.3	European Maritime and Fisheries Fund (EMFF), Regional Fisheries Management Organisations (RFMOs) and Sustainable Fisheries Agreements (SFAs)	646.1	- 45.1	- 16.7	- 47.7
2.0.4	Programme for the Environment and Climate Action (Life)	316.1	- 22.3	- 8.1	- 23.3
2.0.DAG	Decentralised agencies	56.9	- 0.1	- 1.6	- 4.5
2.0.OTH	Other actions and programme	6.0	-	- 0.2	- 0.5
2.0.PPA	Pilot projects and preparatory actions	9.9	- 1.0	- 0.2	- 0.7
2.0.SPEC	Actions financed under the prerogatives of the Commission and specific competences conferred to the Commission	-	-	-	-
3	**SECURITY AND CITIZENSHIP**				
3.0.1	Asylum, Migration and Integration Fund	594.4	- 32.2	- 15.6	- 44.6
3.0.2	Internal Security Fund	481.2	- 5.8	- 13.2	- 37.8
3.0.3	IT Systems	13.2	-	- 0.4	- 1.0
3.0.4	Justice Programme	35.9	- 3.6	- 0.9	- 2.6
3.0.5	Rights, Equality and Citizenship programme	46.6	- 4.1	- 1.2	- 3.4
3.0.6	Union Civil Protection Mechanism	34.3	- 1.4	- 0.9	- 2.6
3.0.7	Europe for Citizens	28.6	- 0.8	- 0.8	- 2.2
3.0.8	Food and feed	248.4	- 39.2	- 5.8	- 16.6
3.0.9	Union action in the field of health (Health Programme)	55.9	- 4.2	- 1.4	- 4.1
3.0.10	Consumer Programme	23.1	- 0.7	- 0.6	- 1.8
3.0.11	Creative Europe Programme	180.7	- 11.7	- 4.7	- 13.4
3.0.DAG	Decentralised agencies	897.7	- 37.4	- 23.9	- 68.3

		2018 Draft Budget	Option I	Option II	
			(UK withdrawal)	NO DEAL	DEAL
		(EUR m)	(EUR m)	(EUR m)	(EUR m)
3.0.OTH	Instrument for emergency support within the Union	220.6	-	- 6.1	- 17.5
3.0.PPA	Pilot projects and preparatory actions	11.6	- 1.6	- 0.3	- 0.8
3.0.SPEC	Actions financed under the prerogatives of the Commission and specific competences conferred to the Commission	91.7	- 2.0	- 2.5	- 7.1
4	**GLOBAL EUROPE**				
4.0.1	Instrument for Pre-accession Assistance (IPA)	1,527.9	-	- 42.4	- 121.3
	European Neighbourhood Instrument (ENI)	2,265.5	-	- 62.8	- 179.9
	Defence Co-operation Instrument (DCI)	2,717.6	-	- 75.3	- 215.8
	Partnership Instrument for cooperation with third countries (PI)	100.7	-	- 2.8	- 8.0
	European Instrument for Democracy and Human Rights (EIDHR)	169.3	-	- 4.7	- 13.4
	Instrument contributing to Stability and Peace (IcSP)	325.3	-	- 9.0	- 25.8
	Humanitarian Aid (HUMA)	1,095.0	-	- 30.4	- 87.0
	Common Foreign and Security Policy (CFSP)	297.0	-	- 8.2	- 23.6
	Instrument for Nuclear Safety Cooperation (INSC)	45.5	-	- 1.3	- 3.6
	Macro-financial assistance	42.1	-	- 1.2	- 3.3
	Guarantee Fund for external actions (GF)	137.8	-	- 3.8	- 10.9
	Union Civil Protection Mechanism	15.5	-	- 0.4	- 1.2
	EU Aid Volunteers initiative (EUAV)	16.9	-	- 0.5	- 1.3
	European Fund for Sustainable Development (EFSD)	25.0	-	- 0.7	- 2.0
	Other actions and programmes	73.9	-	- 2.0	- 5.9
	Actions financed under the prerogatives of the Commission and specific competences conferred to the Commission	66.1	-	- 1.8	- 5.2
	Pilot projects and preparatory actions	9.9	-	- 0.3	- 0.8
	Decentralised agencies	20.3	-	- 0.6	- 1.6
5	**ADMINISTRATION**	9,685.0	- 150.1	- 264.3	- 757.1
6	**COMPENSATIONS**	-	-	-	-
8	**NEGATIVE RESERVE**	-	-	-	-

		2018 Draft Budget	Option I	Option II	
			(UK withdrawal)	NO DEAL	DEAL
		(EUR m)	(EUR m)	(EUR m)	(EUR m)
9	**SPECIAL INSTRUMENTS**	619.6	- 0.2	- 17.2	- 49.2
TOTAL		**145,425.1**	**- 7,299.2**	**- 3,829.2**	**- 10,968.3**

Conclusions

Brexit will create a Black Hole in the EU finances. This will lead to four possible outcomes. Either the EU will require the remaining member states to contribute more to its budget, with or without a Deal with the UK for tariff-free access to the Single Market. Or the EU will reduce its spending, with or without a UK/EU Deal.

None of the EU-27 will be winners from Brexit, but it is possible to say that some will be "relative winners" in that they do not lose out as badly as other member states. The simplest way to assess the impact of Brexit is the absolute cost to each member state, although that overlooks the fact that, say, a €10 million cost has a different impact on a country already making a €1 billion net contribution and on one which is a €100 million net recipient. So a supplemental measure of the burden, in effect of the financial pain caused to a country by Brexit, is to consider its absolute cost as a percentage of its pre-Brexit net contribution to, or net receipt from, the EU Budget.

The potential size of the tariff revenue that could be collected on imports from the UK, which are not distributed evenly across the EU-27, and the mechanisms for determining the EU own resources due from member states, mean that the financial impact of Brexit for each individual member state could vary considerably as between the four outcomes. In the cases of Belgium, Cyprus and Spain, in the correct circumstances this difference is sufficient to convert them into net contributors to the EU.

Tables 7-10 below summarise the countries at the two extremes for all four of the outcomes discussed in this paper.

Table 7: Outliers where member states contribute more, with a UK/EU Trade Deal

Five Largest "Relative Winners"	(EUR m)	Five Largest Losers	(EUR m)
Malta	- 6.9	Germany	- 3,766.6
Cyprus	- 12.2	France	- 1,567.0
Estonia	- 15.1	Italy	- 1,148.4
Latvia	- 18.4	Netherlands	- 804.2
Luxembourg	- 25.9	Spain	- 787.6

In addition to this list of "relative winners", Bulgaria, the Czech Republic, Estonia, Greece, Hungary, Latvia, Lithuania, Luxembourg, Poland, Romania, the Slovak Republic and Slovenia all incur a cost which is less than 5% of their pre-Brexit outcome. However, whilst the Cyprus cost is small in absolute terms it does represent the loss of 21% of their current net receipts from the EU. The cost to Spain eliminates almost all (95%) of their net receipts from the EU, and in addition to the five "loser" countries in Table 7, Austria, Belgium, Croatia and Ireland all suffer costs of at least a quarter of their current net contribution/receipt.

Table 8: Outliers where member states contribute more, without a UK/EU Trade Deal

Five Largest "Relative Winners"	(EUR m)	Five Largest Losers	(EUR m)
Latvia	- 6.7	Germany	- 3,618.9
Estonia	- 8.1	Ireland	- 1,625.3
Luxembourg	- 9.8	France	- 1,179.7
Slovenia	- 13.4	Netherlands	- 1,055.6
Croatia	- 14.6	Spain	- 818.5

Once more, there is a sizeable bloc of countries (Bulgaria, the Czech Republic, Estonia, Greece, Hungary, Latvia, Lithuania, Luxembourg, Poland, Romania, the Slovak Republic, Slovenia) which suffer a loss of less than 5% of their net contribution/receipts, and Portugal only just crosses this threshold. Ireland is hit extremely heavily, with its exposure to UK trade causing its net contribution to more than quadruple through its liability to tariff revenue. Spain will again be very nearly converted into net contributor status (losing 99% of its net receipt from the EU) and Cyprus has a relatively heavy burden (losing nearly two-thirds of its net receipt).

Table 9: Outliers where the EU spends less, with a UK/EU Trade Deal

Five Largest "Relative Winners"	(EUR m)	Five Largest Losers	(EUR m)
Malta	- 22.9	Germany	- 2,391.1
Cyprus	- 27.1	Poland	- 1,876.1
Estonia	- 66.6	Spain	- 1,399.7
Croatia	- 67.3	France	- 1,371.8
Finland	- 113.6	Italy	- 1,167.3

Once the EU reaction is shifted to a reduction in spending it causes the burden of Brexit to be spread rather more evenly. All countries suffer a cost at least equal to 9% of their current net contribution/receipt, with the Netherlands incurring the lightest burden. (This may be a consequence of the underlying modelling assumption of an across-the-board reduction in all EU programmes, so in practice the effect might be moderated by a bias to preserve budgets aimed at the most "needy".) Spain becomes a net contributor to the EU Budget, and Belgium nearly so, with Croatia, Cyprus and Ireland all receiving costs in excess of one-third of their present net contribution/receipt.

Table 10: Outliers where the EU spends less, without a UK/EU Trade Deal

Five Largest "Relative Winners"	(EUR m)	Five Largest Losers	(EUR m)
Malta	- 28.6	Germany	- 3,510.2
Estonia	- 44.4	Ireland	- 1,693.5
Croatia	- 46.6	France	- 1,573.0
Cyprus	- 50.4	Spain	- 1,448.8
Latvia	- 77.7	Poland	- 1,321.3

The combination of spending cuts and tariff revenue on imports from the UK has the somewhat perverse effect of tightening the spread of the burden of Brexit (twenty states have a burden between 9.65 and 19.9%), except at the top end where those countries hit hardest incur a much heavier impact. Belgium, Cyprus, Spain and Ireland suffer quite badly in relative terms. Spain would become a net contributor and Ireland would again see its net contribution more than quadrupling. Belgium and Cyprus lose at least two-thirds of their net receipt from the EU.

These findings may be summarised briefly:

- A majority of EU member states are better off in immediate financial terms if the EU does *not* conclude a free trade Deal with the UK, and this is the case whether the EU opts to close the Black Hole by increasing member contributions or reducing spending. However, such a simplistic stance overlooks the small scale of the benefit in most cases, the longer-term impact on each state's exports, and the nuances of the EU's internal negotiation process.

- It should come as no surprise that Germany, France and Italy, as the richest member states of the EU excluding the UK, bear the highest absolute costs of Brexit, whichever approach is adopted. However, the burden of Brexit for them, in terms of percentage increase in their net contribution, whilst significant is not excessive and is generally stable. They diverge as to which outcome offers them the least-worst impact.

- Germany is much better off in immediate financial terms if the EU decides to close the Black Hole by reducing its spending, and couples this with a Free Trade Deal with the UK.

- In contrast, Italy, and to a lesser extent France, are markedly better off if the EU opts to increase member contributions and does not reach a Deal with the UK.

- Spain will suffer badly in relative financial terms irrespective of which post-Brexit outcome is followed. It will either become a net contributor to the EU Budget or see its net receipts more or less eliminated. The country's least-worst results occur if the Black Hole is closed by increased member contributions.

- Ireland will also suffer fairly badly in relative terms whatever happens, but it will incur absolutely punishing burdens if no UK-EU trade Deal is reached.

- The other major potential losers in relative terms are Belgium, Croatia and Cyprus. They are exposed to extremely heavy post-Brexit burdens depending upon which outcome is followed.

- There is a bloc of twelve countries (Bulgaria; the Czech Republic; Estonia; Greece; Hungary; Latvia; Lithuania; Luxembourg; Poland; Romania; the Slovak Republic; Slovenia) together with Portugal as a more marginal thirteenth case, which suffer comparatively light impacts if the Black Hole is filled through increased contributions. They would all be better off if there were no UK/EU Deal, but the cost differences either way are not significant.

The political reality is that the EU does not face a cliff-edge binary choice between increasing its members' contributions and cutting spending. In the end, a compromise somewhere in the middle will in all likelihood be reached. What the findings of this paper indicate, however, is that the attractiveness of a compromise on financing to any member of the EU is affected by whether or not there is at the same time a trade deal with the UK.

This gives a far more nuanced understanding of the ongoing Brexit negotiations, because how the EU intends to fill the Black Hole becomes a factor. The fate of a UK/EU Deal for tariff-free access to the Single Market may not depend on anything which the UK does or offers. It is just as likely to be influenced by arguments between the EU Commission and key member states as to how much spending the EU will undertake.

APPENDICES

Appendix A1: EU Own Resources by Member, Draft Budget 2018

Table A1: Own Resources contributions of the EU-28 in Draft Budget 2018

	Customs Duties (EUR m)	VAT (EUR m)	Headline GNI (EUR m)	Fixed Rebates (EUR m)	UK Rebate (EUR m)	Final GNI (EUR m)	Total (EUR m)
Belgium	2,473.2	562.6	2,924.6	31.1	242.8	3,198.6	9,432.9
Bulgaria	88.1	71.6	331.0	3.5	27.5	362.0	883.7
Czech Republic	287.5	219.8	1,177.8	12.5	97.8	1,288.1	3,083.6
Denmark	377.7	342.2	2,003.2	- 120.3	166.3	2,049.2	4,818.4
Germany	,731.6	2,093.1	22,338.6	237.4	319.0	22,895.0	52,614.7
Estonia	32.9	34.6	151.7	1.6	12.6	165.9	399.2
Ireland	305.4	258.2	1,597.7	17.0	132.7	1,747.4	4,058.3
Greece	177.1	222.0	1,236.8	13.1	102.7	1,352.7	3,104.5
Spain	1,712.5	1,588.3	7,887.5	83.8	654.9	8,626.3	20,553.4
France	1,749.8	3,133.7	15,692.0	166.8	1,303.0	17,161.7	39,207.0
Croatia	52.6	72.5	317.6	3.4	26.4	347.3	819.7
Italy	2,095.9	1,996.2	11,499.7	122.2	954.9	12,576.8	29,245.8
Cyprus	21.9	27.8	121.9	1.3	10.1	133.3	316.4
Latvia	48.0	34.2	183.8	2.0	15.3	201.0	484.2
Lithuania	87.4	52.6	270.7	2.9	22.5	296.0	732.0
Luxembourg	22.0	59.2	259.4	2.8	21.5	283.6	648.5
Hungary	157.0	157.7	814.4	8.7	67.6	890.7	2,096.2
Malta	13.2	15.7	68.7	0.7	5.7	75.2	179.2
Netherlands	2,746.6	470.0	4,832.7	- 705.4	69.0	4,196.3	11,609.2
Austria	221.1	519.1	2,444.5	26.0	34.9	2,505.4	5,751.0
Poland	705.2	597.8	3,076.1	32.7	255.4	3,364.3	8,031.5
Portugal	154.7	289.5	1,270.7	13.5	105.5	1,389.7	3,223.6
Romania	162.2	205.8	1,231.4	13.1	102.3	1,346.8	3,061.6
Slovenia	77.4	60.0	282.1	3.0	23.4	308.5	754.5
Slovak Republic	105.3	90.0	569.0	6.0	47.2	622.3	1,439.9
Finland	154.1	288.7	1,490.6	15.8	123.8	1,630.2	3,703.1
Sweden	548.0	321.6	3,314.9	- 166.2	47.3	3,196.1	7,261.8
United Kingdom	3,535.6	3,465.1	16,088.1	171.0	- 4,992.3	11,266.8	29,534.2
TOTAL	**22,844.0**	**17,249.6**	**103,477.3**	**-**	**-**	**103,477.3**	**143,570.8**

Source: Statement of Estimates for the European Commission for the financial year 2018, page 560

"Fixed Rebates" are the gross reductions in GNI-related contributions in favour of Denmark, the Netherlands and Sweden.

Appendix A2: EU planned expenditure in Draft Budget 2018

Table A2: EU planned programme payments in Draft Budget 2018

	(EUR m)	(EUR m)	(EUR m)	(EUR m)
SMART AND INCLUSIVE GROWTH	66,845.9			
Competitiveness for growth and jobs		20,082.7		
Large infrastructure projects			1,826.2	
Implementation and exploitation of European satellite navigation systems (EGNOS and GALILEO)				718.0
International Thermonuclear Experimental Reactor (ITER)				500.6
European Earth Observation Programme (Copernicus)				607.6
European Fund for Strategic Investments (EFSI)			1,828.0	
Nuclear decommissioning assistance programmes			152.4	
Common Strategic Framework (CSF) Research and Innovation			11,216.9	
The Framework Programme for Research and Innovation (Horizon 2020)				10,901.5
Euratom Research and Training Programme				315.5
Programme for the Competitiveness of Enterprises and small and medium-sized enterprises (COSME)			253.5	
The Union Programme for Education, Training, Youth and Sport (Erasmus+)			2,133.6	
European Union Programme for Employment and Social Innovation (EaSI)			118.5	
Action Programmes for customs, for taxation and for anti-fraud in the European Union (Customs 2020, Fiscalis 2020 and Anti-Fraud)			124.8	
Connecting Europe Facility (CEF)			1,523.0	
Energy				217.7
Transport				1,163.3
Informations and Communications Technology (ICT)				142.0
Energy projects to aid economic recovery (EERP)			210.0	
European Solidarity Corps			55.7	
Other actions and programmes			153.5	
Actions financed under the prerogatives of the Commission and specific competences conferred to the Commission			116.9	
Pilot projects and preparatory actions			51.8	

	(EUR m)	(EUR m)	(EUR m)	(EUR m)
Decentralised agencies			317.7	
Economic, social and territorial cohesion		46,763.5		
Investment for growth and jobs			43,592.4	
Less developed regions (Regional convergence)				23,387.6
Transition regions				4,095.5
More developed regions (Competitiveness)				7,484.1
Outermost and sparsely populated regions				169.0
Cohesion fund				8,456.3
Connecting Europe Facility CEF			625.8	
European territorial cooperation			1,325.2	
Youth Employment Initiative (specific top-up allocation)			600.0	
Technical assistance and innovative actions			204.1	
Fund for European Aid to the Most Deprived			401.4	
Pilot projects and preparatory actions			14.6	
SUSTAINABLE GROWTH: NATURAL RESOURCES	56,359.8			
European Agricultural Guarantee Fund (EAGF) - Market related expenditure and direct payments		43,472.5		
European Agricultural Fund for Rural Development (EAFRD)		11,852.2		
European Maritime and Fisheries Fund (EMFF), Regional Fisheries Management Organisations (RFMOs) and Sustainable Fisheries Agreements (SFAs)		646.1		
European Maritime and Fisheries Fund (EMFF)			514.5	
Regional Fisheries Management Organisations (RFMOs) and Sustainable Fisheries Agreements (SFAs)			131.6	
Programme for the Environment and Climate Action (Life)		316.1		
Decentralised agencies		56.9		
Other actions and programme		6.0		
Pilot projects and preparatory actions		9.9		
Actions financed under the prerogatives of the Commission and specific competences conferred to the Commission		-		
SECURITY AND CITIZENSHIP	2,963.8			

	(EUR m)	(EUR m)	(EUR m)	(EUR m)
Asylum, Migration and Integration Fund		594.4		
Internal Security Fund		481.2		
IT Systems		13.2		
Justice Programme		35.9		
Rights, Equality and Citizenship programme		46.6		
Union Civil Protection Mechanism		34.3		
Europe for Citizens		28.6		
Food and feed		248.4		
Union action in the field of health (Health Programme)		55.9		
Consumer Programme		23.1		
Creative Europe Programme		180.7		
Decentralised agencies		897.7		
Instrument for emergency support within the Union		220.6		
Pilot projects and preparatory actions		11.6		
Actions financed under the prerogatives of the Commission and specific competences conferred to the Commission		91.7		
GLOBAL EUROPE	8,951.0			
Instrument for Pre-accession Assistance (IPA)		1,527.9		
European Neighbourhood Instrument (ENI)		2,265.5		
Defence Co-operation Instrument (DCI)		2,717.6		
Partnership Instrument for cooperation with third countries (PI)		100.7		
European Instrument for Democracy and Human Rights (EIDHR)		169.3		
Instrument contributing to Stability and Peace (IcSP)		325.3		
Humanitarian Aid (HUMA)		1,095.0		
Common Foreign and Security Policy (CFSP)		297.0		
Instrument for Nuclear Safety Cooperation (INSC)		45.5		
Macro-financial assistance		42.1		
Guarantee Fund for external actions (GF)		137.8		
Union Civil Protection Mechanism		15.5		

	(EUR m)	(EUR m)	(EUR m)	(EUR m)
EU Aid Volunteers initiative (EUAV)		16.9		
European Fund for Sustainable Development (EFSD)		25.0		
Other actions and programmes		73.9		
Actions financed under the prerogatives of the Commission and specific competences conferred to the Commission		66.1		
Pilot projects and preparatory actions		9.9		
Decentralised agencies		20.3		
ADMINISTRATION	9,685.0			
SPECIAL INSTRUMENTS	619.6			
TOTAL	**145,425.1**			

Source: Statement of Estimates for the European Commission for the financial year 2018, pages 199-203

"Special instruments" are the Emergency Aid Reserve, the European Globalisation Adjustment Fund and the European Union Solidarity Fund, which actually fall outside the ceilings agreed in the MFF.

Appendix B1: EU revenue

This note considers the various revenue streams within EU Draft Budget 2018 and the capacity for expanding them in the light of Brexit.

Traditional Own Resources

These were the original sources of finance for the EU, dating from when it operated exclusively as a customs union.

Sugar sector levies

Instituted in 1968, sugar producers were liable for a levy as part of the Common Agricultural Policy. This has now been abolished with effect from the 2016/17 agricultural year as part of an overhaul of the EU sugar market and changes to the quota system.[1]

There will therefore be zero revenue from sugar levies from 2018 onwards. It is assumed that there is no flexibility for reversing this decision (which would lead to considerable complications at the WTO level) in the light of Brexit. In this paper it is therefore assumed that the EU will have zero revenue under this heading.

Customs duties

Goods imported from outside the EU are subject to the common external tariff system. Member states collect these levies, withhold 20% to cover their costs, and the remaining 80% is transmitted to the EU as income.[2]

The EU's ability to increase its tariffs on imports is curtailed by membership of the WTO. The only capacity to expand this revenue stream will depend upon whether there is a UK/EU deal for tariff-free access to the Single Market in goods, not by increasing the level of any tariffs but by removing the exemption from them for imports from the UK. This paper considers the two alternatives where all goods are subject to import duties, and where all of them are exempt. The financial implications are discussed further in Appendix B3, below.

National Contribution Own Resources

This comprises two elements:

VAT

The EU operates a harmonised system of Valued Added Tax. Each member state is required to contribute 0.3% of its VAT base to the EU each year, subject to a ceiling equal to 50% of its GNI. However, for the MFF covering 2014-2020, Germany, the Netherlands and Sweden have the benefit of a special rate limited to 0.15%.[3]

There is no capacity to expand revenue under this heading in the event of Brexit without re-opening the entire MFF negotiation. For the purposes of this paper this revenue stream is taken as fixed.

Gross National Income (GNI)

GNI is the total domestic and foreign output claimed by residents of a country. It represents Gross Domestic Product (GDP), the total value of goods and services produced in a country, plus the net contribution of citizens employed abroad and net property income from overseas, minus net taxes and subsidies on products and imports. In the context of a union whose citizens are supposedly free

[1] Council Regulation 1308/2013, Article 124.
[2] Council Decision 2014/335, Article 2(3).
[3] Council Decision 2014/335, Article 2(1)(b) and 2(4).

to move from one state to another, this is considered a fairer measure of the extent to which a country benefits from membership than the value of the output from its physical territory. The revenue stream was originally introduced in 1988 under the Delors Presidency as a supplement to stabilise the long-term finances of the EU through a mechanism more closely related to national wealth. It has since become the major component of EU financing.

In principle, a member states' GNI-related contribution is determined by a single uniform rate applicable to each country. However, that rate is not subject to a specific ceiling. The rate is "*determined pursuant to the budgetary procedure in the light of the total of all other revenue*"[4], i.e. whatever rate is required to make the budget balance. The only ceiling on the budget is that the total own resources contributions of all member states in aggregate appropriated for payments in any one year cannot exceed 1.23% of the total GNI of the EU as a whole,[5] and the Commission cannot enter into commitments exceeding 1.29% of total GNI.[6]

These constraints apply to the budget as a whole, not to any individual member state. If in any year there were to be a shortfall in one element of revenue, for example the removal of the UK's entire own resources contribution, the slack would be made up by an expansion of the GNI-related contributions of the other member states, reallocating the liability without exceeding the EU-wide thresholds within which the budget was originally set.

The general principle of a uniform rate is subject to two modifications. Firstly, specific rebates have been agreed in favour of Denmark, the Netherlands and Sweden for the 2014-2020 MFF. These are deducted from the GNI-related contribution otherwise due from those countries and reallocated to the other member states in proportion to their respective GNI.[7] These amounts are set at €130m, €695m and €185m respectively for 2014 and uprated by a quasi-inflation measure for each successive year.

Secondly, there is a specific correction in favour of the UK. The rebate, originally negotiated by Margaret Thatcher and modified by Tony Blair, is now in crude terms a reimbursement of 66 % of the difference between its contribution in the previous year and what it received back from the budget.[8] The cost of the UK rebate is divided among EU Member States in proportion to the share they contribute to the EU's GNI, although Germany, the Netherlands, Austria and Sweden pay only 25 % of their share, leading to yet another adjustment.[9]

Brexit removes the need to adjust member states' GNI contribution to take account of the UK rebate. It has no effect whatsoever on the rebates for Denmark, the Netherlands and Sweden. Neither has any impact on the total financing requirement for the EU. All that changes is the relative shares between the remaining member states.

The Black Hole in the EU budget will be made good by increased GNI-related own resources contributions from the remaining EU-27. The only question is whether the amount of the Black Hole is first reduced by additional customs duty revenue raised in the event of a failure to reach a UK/EU deal on access to the Single Market.

---

[4] Council Decision 2014/335, Article 2(1)(c).
[5] Council Decision 2014/355, Article 3(1).
[6] Council Decision 2014/355, Article 3(2).
[7] Council Decision 2014/355, Article 2(5).
[8] Council Decision 2014/355, Article 4.
[9] Council Decision 2014/355, Article 5.

Surpluses, balances and adjustments

The EU budget for each year is set on the basis of the most recent forecasts for the underlying elements (customs receipts, VAT base, member state GNI etc.), and member states make advance contributions to the EU against their final liabilities on the basis of these predictions. Unfortunately, reality has a habit of not coinciding with the forecasts. The budget therefore requires a line to cater for adjustments to the forecasts, and also overruns and underspends on the original appropriations, and they are netted off and booked as income under this heading.

It is a truism of any budgeting process that you assume it is based on accurate forecasts. Therefore, Draft Budget 2018 scores no income under this revenue stream. For the same reason, for the purposes of this paper, there is no capacity to expand this revenue line to handle the impact of Brexit.

Revenue accruing from persons working with the Institutions and other EU bodies

This represents deductions from staff pay (taxes, special levies) and pension transactions.

It is unclear whether Brexit will require a smaller headcount for the EU bodies as a whole, although in principle it ought to. That points towards a reduced revenue stream under this heading (and presumably greater savings out of ordinary expenditure, although there might be higher extraordinary costs e.g. redundancy payments). Equally, one can imagine a Eurocrat arguing for a higher headcount in order to deal with the additional work caused by Brexit – which would increase this revenue stream, but greatly increase the expenditure side of the ledger.

For the purposes of this paper, it is assumed that Brexit leads to zero change in this revenue item.

Revenue accruing from the administrative operation of the Institutions

This income stream covers revenue from investments or loans, bank and other interest, and proceeds from the sale of publications or from letting and hiring.

For the purposes of this paper it is assumed that Brexit has zero impact on this level of revenue.

Contributions and refunds in connection with Union agreements and programmes

This part of the budget covers contributions by third parties to certain EU programmes, contributions to the EEA, repayment of miscellaneous expenditure (e.g. unused EU aid,), revenue in respect of services supplied against payment and income from the European Agricultural Guarantee Fund (EAGF) and the European Agricultural Fund for Rural Development (EAFRD).

If, post-Brexit, the UK paid-in to the EU in order to continue participating in some of its programmes (as non-EU members already do, e.g. Switzerland) then this is the area of the budget where the revenue would be booked. It is indeed quite likely that to some extent such an arrangement will occur. However, it is a fundamental planning assumption of this paper that any such payments will be matched by equivalent increases in EU expenditure[10], i.e. they would be completely neutral for budgeting purposes and do nothing to address the Black Hole.

Thus, although in practice this revenue stream will almost certainly materially increase as a consequence of Brexit, this has to be ignored for the purposes of assessing the impact upon the remaining EU-27.

Interest on late payments and fines

This revenue stream covers interest charged by the EU to member states on the late payment of own

[10] See above.

resources contributions, together with fines levied by the Commission e.g. for breaches of competition rules.

By its very nature this revenue is unpredictable and, largely, uncontrollable. There is certainly no capacity to deliberately plan for an expansion of income in this area, e.g. by deliberately deciding to prosecute more non-EU companies, because that would leave the Commission open to (presumably justified) legal action through the ECJ or the WTO. For the purposes of this paper it has to be assumed that there is no capacity to expand this revenue stream in the light of Brexit.

Borrowing and lending operations

This covers capital repayments and interest payments on loans granted by the Commission, and revenue from EU financial operations from borrowed funds and the contribution from the general budget, in the form of both guarantees and appropriations for interest subsidies.

There is no obvious reason why this heading should increase as a result of Brexit and for the purposes of this paper it is assumed that the impact is zero.

Miscellaneous revenue

There is no obvious reason why this heading should increase as a result of Brexit and for the purposes of this paper it is assumed that the impact is zero.

Presumably, any UK "divorce fee" for Brexit would be booked under this heading (assuming it was not treated as a purely balance sheet capital item). It is outside the scope of this paper to consider this aspect. Any such payment would represent a one-off windfall which could not be carried forward beyond the MFF in which it was received. Such a penalty payment would merely defer resolution of the structural deficit within the EU budget with which this paper is concerned.

Appendix B2: Estimated allocation of EU spending between members

Draft Budget 2018 sets the appropriations for each of the EU spending programmes but does not specify the geographical allocation between member states. However, those programmes are set for the 2014-2020 MFF, so it is possible to refer to the accounts for 2014 and 2015 to analyse how those funds were disbursed. As would be expected, there is reasonable consistency year-on-year, because the same programmes, with the same objectives, would be spending more or less the same funds on more or less the same recipients.

Table B2.1 below presents these allocations, which are sufficiently robust for assessing the impact of Option (I).

Table B2.1: Estimated member state allocations of EU expenditure for Draft Budget 2018

	Proportion of spending			Projected 2018 receipts
	2014	2015	Average	(EUR m)
Belgium	4.9%	4.8%	4.9%	7,073.7
Bulgaria	1.6%	1.9%	1.7%	2,519.4
Czech Republic	3.1%	4.9%	4.0%	5,787.8
Denmark	1.1%	1.1%	1.1%	1,536.6
Germany	8.1%	7.6%	7.8%	11,370.4
Estonia	0.5%	0.3%	0.4%	561.1
Ireland	1.1%	1.4%	1.2%	1,805.2
Greece	5.0%	4.3%	4.6%	6,724.2
Spain	8.1%	9.4%	8.8%	12,753.5
France	9.5%	10.0%	9.7%	14,124.8
Croatia	0.4%	0.4%	0.4%	600.8
Italy	7.5%	8.5%	8.0%	11,641.3
Cyprus	0.2%	0.1%	0.2%	240.7
Latvia	0.7%	0.7%	0.7%	1,032.9
Lithuania	1.3%	0.6%	1.0%	1,396.5
Luxembourg	1.2%	1.1%	1.2%	1,699.9
Hungary	4.6%	3.9%	4.3%	6,190.8
Malta	0.2%	0.1%	0.1%	196.7
Netherlands	1.4%	1.6%	1.5%	2,210.4
Austria	1.1%	1.2%	1.2%	1,698.2
Poland	12.2%	9.2%	10.7%	15,563.3
Portugal	3.5%	1.8%	2.6%	3,809.9
Romania	4.2%	4.5%	4.3%	6,308.4
Slovenia	0.8%	0.6%	0.7%	1,052.5
Slovak Republic	1.2%	2.6%	1.9%	2,731.0
Finland	0.7%	0.9%	0.8%	1,208.9
Sweden	1.2%	1.0%	1.1%	1,596.5
United Kingdom	4.9%	5.1%	5.0%	7,299.2
Other	9.8%	10.4%	10.1%	14,690.4
TOTAL SPENDING				**145,425.1**

The UK allocation, €7.3 billion, is the amount by which the EU core budget is assumed to be reduced for the purposes of assessing Option (I).

Data sources

2018 spending data taken from *Statement of estimates of the European Commission for the financial year 2018*

2014 and 2015 spending data taken from *Internet Tables 2000-2015* downloaded from http://ec.europa.eu/budget/financialreport/2015/foreword/index_en.html (accessed 14/9/17)

Appendix B3: Estimating customs duties on EU imports from the UK

Although tariff-free access to the Single Market has always been regarded as one of the major advantages of UK membership of the EU, very few attempts to place a value on this access go beyond the robustness of a back-of-the-envelope guesstimate. That is because it is an extremely difficult exercise to undertake. Individual commodities can be subject to widely-differing specific tariffs, even within similar product categories, such as types of steel or agricultural crops. Hence, changes in the volumes of sale of a given commodity, or using data for aggregated product types, can result in exaggerated differences in any estimate of the impact of tariffs, and there is no guarantee that an estimate derived for any given year will be applicable to the trading conditions of another.

To date, only two studies of this issue have been conducted with adequate thoroughness. *Change Or Go* (Business for Britain, 2015) analysed data for 2013 from UN COMTRADE for UK exports to 56 countries using the lowest reported commodity type, matching 128,488 pieces of commodity export data against a potential total of 647,533 tariff lines. This concluded that UK exports to the EU-27 would have suffered tariff costs of £6.0 billion in 2013, and imports in the other direction would probably have raised at least £9.0 billion, although that was a far less robust estimate.

Potential post-Brexit tariff costs for EU-UK trade (Civitas, 2016) analysed data for 2015 from UN COMTRADE, confined just to exports to the EU-27 and at a higher level of commodity aggregation. This concluded that UK exports to the EU-27 would have suffered tariff costs of £5.2 billion in 2015, and imports in the other direction would have raised £12.9 billion.

These are quite different estimates for quite different trading years, but both studies derived average tariff rates for exports from the UK to each of the EU-27, and these can be used as a basis for producing an estimate of the 2018 costs. For the purposes of this exercise, the higher of the two rates is selected as this will maximise the projected revenue raised and so produces the more conservative estimate of the problems created by the Black Hole. Table B3.1 below summarises these results.

Table B3.1: Assumed average tariff rates for UK exports to EU-27 member states

	Business for Britain estimate	Civitas estimate	Selected average tariff
Belgium	4.3%	6.1%	6.1%
Bulgaria	3.1%	5.3%	5.3%
Czech Republic	3.6%	4.2%	4.2%
Denmark	4.0%	8.2%	8.2%
Germany	3.4%	5.5%	5.5%
Estonia	3.2%	1.6%	3.2%
Ireland	7.2%	10.3%	10.3%
Greece	5.0%	9.3%	9.3%
Spain	4.0%	7.5%	7.5%
France	4.2%	5.6%	5.6%
Croatia	3.4%	4.9%	4.9%
Italy	4.5%	5.4%	5.4%
Cyprus	6.1%	10.8%	10.8%
Latvia	2.3%	1.6%	2.3%
Lithuania	3.8%	5.2%	5.2%
Luxembourg	3.0%	2.7%	3.0%
Hungary	3.3%	5.0%	5.0%

	Business for Britain estimate	Civitas estimate	Selected average tariff
Malta	4.6%	3.1%	4.6%
Netherlands	3.4%	5.1%	5.1%
Austria	4.4%	4.1%	4.4%
Poland	3.8%	6.0%	6.0%
Portugal	4.5%	6.7%	6.7%
Romania	4.1%	6.4%	6.4%
Slovenia	3.5%	4.2%	4.2%
Slovak Republic	3.5%	8.5%	8.5%
Finland	3.7%	2.2%	3.7%
Sweden	3.9%	3.0%	3.9%

Estimates for the value of UK exports to the EU-27 in 2018 can be devised by taking the most recent available data from within the current MFF (2014, 2015) and projecting forward at the rate of growth for exports to each country. Strictly, tariffs are levied on the import value (c.i.f.) at the destination, and export statistics are compiled using the lower f.o.b. value on departure, so this method will produce a slight underestimate. However the scale of the discrepancy is acceptable within the tolerance of the exercise, and it is outweighed by the convenience of using data from a single consistent source (the exporting country) rather than attempting to compile 27 separate sets of import statistics. Only the values for trade in goods are used, as services are not subject to tariffs.

Using UK data will result in estimates priced in sterling, which have to be converted into EUR values for EU budgeting purposes. The GBP/EUR exchange rate has been notoriously volatile in recent times. To attempt to smooth these effects, an average exchange rate is applied from the day after the Brexit referendum.

This will give the estimated gross customs revenue for each member state in EUR. Out of this revenue each state is entitled to withhold 20% to represent its collection costs, and the balance is deemed to be the own resources of the EU and contributes to its financing. Table B3.2 summarises these results.

Table B3.2: Estimated additional own resources contributions if there is no UK/EU Trade Deal

	Projected new own resources (EUR m)
Belgium	62.30
Bulgaria	16.92
Czech Republic	83.27
Denmark	164.33
Germany	1,677.22
Estonia	5.31
Ireland	1,596.32
Greece	67.07
Spain	675.23
France	894.66
Croatia	8.80
Italy	454.21
Cyprus	35.12
Latvia	3.34

	Projected new own resources (EUR m)
Lithuania	13.05
Luxembourg	5.13
Hungary	64.56
Malta	15.28
Netherlands	646.27
Austria	65.03
Poland	209.30
Portugal	80.20
Romania	65.37
Slovenia	8.29
Slovak Republic	36.27
Finland	41.57
Sweden	144.60
TOTAL	**7,139.05**

The resulting estimate of €7.1 billion only contributes to the EU own resources if there is no deal with the UK for tariff-free access to the Single Market. The method describes above can obviously be criticised as containing a high margin of error. The most significant criticism, however, is that it is based upon a static assumption, with the estimated tariff rates applied to the level of exports which are estimated to have been the case in a tariff-free environment. No account is taken of the possibility that an increase in headline price of the commodities in question would lead to a fall in sales volumes, and hence affect the final amount of customs duties raised. In the context of this paper there is no satisfactory means of assessing the price elasticity of each category of goods sold by the UK into each of the separate EU-27 economies. But it has to be accepted that the figure derived is almost certainly an over-estimate of what would most likely be the case in practice.

Data sources

Estimated tariff rates taken from *Change Or Go* (Business for Britain, 2015), Chapter 30, and *Potential post-Brexit tariff costs for EU-UK trade* (Civitas, 2016), Table 1.

Estimated values of goods exports derived from the figures for 2014, 2015 and 2016 downloaded from the ONS website (https://www.ons.gov.uk/) for Austria (data series QBRY), Belgium (data series QDOH), Bulgaria (data series QAMF), Croatia (data series QAMM), Cyprus (data series QDNZ), the Czech Republic (data series QDLF), Denmark (data series QBSE), Estonia (data series QAMN), Finland (data series QBSH), France (data series QDJA), Germany (data series QDJD), Greece (data series QDJG), Hungary (data series QDLI), Ireland (data series QDJJ), Italy (data series QDJM), Latvia (data series QAMO), Lithuania (data series QAMP), Luxemburg (data series QDOK), Malta (data series QDOC), the Netherlands (data series QDJP), Poland (data series QDLL), Portugal (data series QDJT), the Slovak Republic (data series QAMR), Slovenia (data series QAMS), Spain (data series QDJW) and Sweden (data series QDJZ). Data release date 31 October 2017.

Exchange rate data taken as the average closing rate for each day from Friday 24 June 2016 to Tuesday 31 October 2017 inclusive, downloaded from http://fxtop.com.

Appendix B4: outcomes for Option (I)

Table B4.1: Option (I) outcomes in the event of a UK/EU Trade Deal

	Pre-Brexit			Post-Brexit Contributions					
	Receipts (EUR m)	Contributions (EUR m)	Balance (EUR m)	Customs duties (EUR m)	VAT (EUR m)	GNI-related (EUR m)	Total (EUR m)	New Balance (EUR m)	Impact (EUR m)
Belgium	7,073.7	6,234.4	839.4	2,473.2	562.6	3,490.6	6,526.4	547.3	- 292.1
Bulgaria	2,519.4	521.7	1,997.7	88.1	71.6	395.0	554.8	1,964.7	- 33.1
Czech Republic	5,787.8	1,795.5	3,992.3	287.5	219.8	1,405.8	1,913.1	3,874.7	- 117.6
Denmark	1,536.6	2,769.1	- 1,232.5	377.7	342.2	2,244.8	2,964.7	- 1,428.1	- 195.6
Germany	11,370.4	29,719.7	- 18,349.2	4,731.6	2,093.1	26,661.6	33,486.2	- 22,115.8	- 3,766.6
Estonia	561.1	233.4	327.7	32.9	34.6	181.0	248.5	312.6	- 15.1
Ireland	1,805.2	2,310.9	- 505.8	305.4	258.2	1,906.9	2,470.5	- 665.3	- 159.5
Greece	6,724.2	1,751.8	4,972.4	177.1	222.0	1,476.2	1,875.3	4,848.9	- 123.5
Spain	12,753.5	11,927.1	826.4	1,712.5	1,588.3	9,413.9	12,714.7	38.8	- 787.6
France	14,124.8	22,045.3	- 7,920.5	1,749.8	3,133.7	18,728.7	23,612.2	- 9,487.5	- 1,567.0
Croatia	600.8	472.4	128.4	52.6	72.5	379.0	504.1	96.7	- 31.7
Italy	11,641.3	16,668.9	- 5,027.6	2,095.9	1,996.2	13,725.2	17,817.3	- 6,176.0	- 1,148.4
Cyprus	240.7	183.1	57.6	21.9	27.8	145.5	195.3	45.4	- 12.2
Latvia	1,032.9	283.2	749.8	48.0	34.2	219.4	301.5	731.4	- 18.4
Lithuania	1,396.5	436.0	960.5	87.4	52.6	323.1	463.0	933.5	- 27.0
Luxembourg	1,699.9	364.9	1,335.0	22.0	59.2	309.5	390.7	1,309.1	- 25.9
Hungary	6,190.8	1,205.4	4,985.4	157.0	157.7	972.1	1,286.7	4,904.1	- 81.3
Malta	196.7	104.1	92.6	13.2	15.7	82.0	110.9	85.7	- 6.9
Netherlands	2,210.4	7,412.9	- 5,202.5	2,746.6	470.0	5,000.5	8,217.1	- 6,006.6	- 804.2
Austria	1,698.2	3,245.6	- 1,547.4	221.1	519.1	2,917.6	3,657.8	- 1,959.6	- 412.2
Poland	15,563.3	4,667.3	10,896.0	705.2	597.8	3,671.4	4,974.5	10,588.8	- 307.2
Portugal	3,809.9	1,833.9	1,976.1	154.7	289.5	1,516.6	1,960.8	1,849.2	- 126.9
Romania	6,308.4	1,714.8	4,593.6	162.2	205.8	1,469.8	1,837.8	4,470.6	- 123.0
Slovenia	1,052.5	445.9	606.5	77.4	60.0	336.7	474.1	578.4	- 28.2

	Pre-Brexit			Post-Brexit Contributions					
	Receipts (EUR m)	Contributions (EUR m)	Balance (EUR m)	Customs duties (EUR m)	VAT (EUR m)	GNI-related (EUR m)	Total (EUR m)	New Balance (EUR m)	Impact (EUR m)
Slovak Republic	2,731.0	817.6	1,913.4	105.3	90.0	679.1	874.4	1,856.6	- 56.8
Finland	1,208.9	2,072.9	- 864.0	154.1	288.7	1,779.0	2,221.8	- 1,012.9	- 148.8
Sweden	1,596.5	4,065.7	- 2,469.2	548.0	321.6	3,747.7	4,617.3	- 3,020.9	- 551.6

Net contributors to the EU indicated in red.

Table B4.2: Option (I) outcomes in the event of no UK/EU Trade Deal

	Pre-Brexit			Post-Brexit Contributions					
	Receipts (EUR m)	Contributions (EUR m)	Balance (EUR m)	Customs duties (EUR m)	VAT (EUR m)	GNI-related (EUR m)	Total (EUR m)	New Balance (EUR m)	Impact (EUR m)
Belgium	7,073.7	6,234.4	839.4	2,535.5	562.6	3,251.7	6,349.8	723.9	- 115.4
Bulgaria	2,519.4	521.7	1,997.7	105.0	71.6	368.0	544.6	1,974.8	- 22.9
Czech Republic	5,787.8	1,795.5	3,992.3	370.8	219.8	1,309.5	1,900.2	3,887.7	- 104.7
Denmark	1,536.6	2,769.1	- 1,232.5	542.0	342.2	2,081.2	2,965.4	- 1,428.8	- 196.3
Germany	11,370.4	29,719.7	- 18,349.2	6,408.8	2,093.1	24,836.7	33,338.6	- 21,968.1	- 3,618.9
Estonia	561.1	233.4	327.7	38.2	34.6	168.6	241.4	319.6	- 8.1
Ireland	1,805.2	2,310.9	- 505.8	1,901.7	258.2	1,776.4	3,936.3	- 2,131.1	- 1,625.3
Greece	6,724.2	1,751.8	4,972.4	244.2	222.0	1,375.2	1,841.4	4,882.8	- 89.5
Spain	12,753.5	11,927.1	826.4	2,387.7	1,588.3	8,769.6	12,745.6	7.9	- 818.5
France	14,124.8	22,045.3	- 7,920.5	2,644.5	3,133.7	17,446.8	23,225.0	- 9,100.2	- 1,179.7
Croatia	600.8	472.4	128.4	61.4	72.5	353.1	487.0	113.9	- 14.6
Italy	11,641.3	16,668.9	- 5,027.6	2,550.1	1,996.2	12,785.8	17,332.1	- 5,690.7	- 663.1
Cyprus	240.7	183.1	57.6	57.0	27.8	135.6	220.4	20.3	- 37.3
Latvia	1,032.9	283.2	749.8	51.3	34.2	204.3	289.8	743.1	- 6.7
Lithuania	1,396.5	436.0	960.5	100.5	52.6	300.9	454.0	942.5	- 18.0
Luxembourg	1,699.9	364.9	1,335.0	27.1	59.2	288.4	374.7	1,325.2	- 9.8
Hungary	6,190.8	1,205.4	4,985.4	221.6	157.7	905.5	1,284.8	4,906.1	- 79.4
Malta	196.7	104.1	92.6	28.5	15.7	76.4	120.6	76.1	- 16.5

		Pre-Brexit		Post-Brexit Contributions					
	Receipts (EUR m)	Contributions (EUR m)	Balance (EUR m)	Customs duties (EUR m)	VAT (EUR m)	GNI-related (EUR m)	Total (EUR m)	New Balance (EUR m)	Impact (EUR m)
Netherlands	2,210.4	7,412.9	- 5,202.5	3,392.9	470.0	4,605.7	8,468.5	- 6,258.1	- 1,055.6
Austria	1,698.2	3,245.6	- 1,547.4	286.1	519.1	2,717.9	3,523.1	- 1,825.0	- 277.5
Poland	15,563.3	4,667.3	10,896.0	914.5	597.8	3,420.1	4,932.5	10,630.8	- 265.2
Portugal	3,809.9	1,833.9	1,976.1	234.9	289.5	1,412.8	1,937.1	1,872.8	- 103.3
Romania	6,308.4	1,714.8	4,593.6	227.6	205.8	1,369.2	1,802.5	4,505.9	- 87.7
Slovenia	1,052.5	445.9	606.5	85.7	60.0	313.7	459.4	593.1	- 13.4
Slovak Republic	2,731.0	817.6	1,913.4	141.6	90.0	632.6	864.2	1,866.8	- 46.6
Finland	1,208.9	2,072.9	- 864.0	195.7	288.7	1,657.3	2,141.6	- 932.7	- 68.6
Sweden	1,596.5	4,065.7	- 2,469.2	692.6	321.6	3,476.9	4,491.1	- 2,894.6	- 425.4

Net contributors to the EU indicated in red.

Appendix B5: outcomes for Option (II)

Table B5.1: Option (II) outcomes in the event of a UK/EU Trade Deal

	Pre-Brexit			Post-Brexit						
	Receipts (EUR m)	Contributions (EUR m)	Balance (EUR m)	Receipts (EUR m)	Customs (EUR m)	VAT (EUR m)	GNI-related (EUR m)	Total (EUR m)	New Balance (EUR m)	Impact (EUR m)
Belgium	7,073.7	6,234.4	839.4	6,185.2	2,473.2	562.6	3,123.5	6,159.4	25.8	- 813.5
Bulgaria	2,519.4	521.7	1,997.7	2,203.0	88.1	71.6	353.5	513.2	1,689.7	- 308.0
Czech Republic	5,787.8	1,795.5	3,992.3	5,060.8	287.5	219.8	1,257.9	1,765.3	3,295.5	- 696.8
Denmark	1,536.6	2,769.1	- 1,232.5	1,343.6	377.7	342.2	1,993.4	2,713.3	- 1,369.7	- 137.2
Germany	11,370.4	29,719.7	- 18,349.2	9,942.2	4,731.6	2,093.1	23,857.9	30,682.5	- 20,740.4	- 2,391.1
Estonia	561.1	233.4	327.7	490.6	32.9	34.6	162.0	229.5	261.1	- 66.6
Ireland	1,805.2	2,310.9	- 505.8	1,578.4	305.4	258.2	1,706.4	2,270.0	- 691.5	- 185.8
Greece	6,724.2	1,751.8	4,972.4	5,879.6	177.1	222.0	1,321.0	1,720.1	4,159.5	- 812.9
Spain	12,753.5	11,927.1	826.4	11,151.5	1,712.5	1,588.3	8,424.0	11,724.8	- 573.3	- 1,399.7
France	14,124.8	22,045.3	- 7,920.5	12,350.5	1,749.8	3,133.7	16,759.2	21,642.7	- 9,292.2	- 1,371.8
Croatia	600.8	472.4	128.4	525.4	52.6	72.5	339.2	464.2	61.1	- 67.3
Italy	11,641.3	16,668.9	- 5,027.6	10,179.0	2,095.9	1,996.2	12,281.9	16,374.0	- 6,194.9	- 1,167.3
Cyprus	240.7	183.1	57.6	210.4	21.9	27.8	130.2	180.0	30.5	- 27.1
Latvia	1,032.9	283.2	749.8	903.2	48.0	34.2	196.3	278.4	624.8	- 125.0
Lithuania	1,396.5	436.0	960.5	1,221.1	87.4	52.6	289.1	429.0	792.0	- 168.5
Luxembourg	1,699.9	364.9	1,335.0	1,486.3	22.0	59.2	277.0	358.2	1,128.1	- 206.9
Hungary	6,190.8	1,205.4	4,985.4	5,413.2	157.0	157.7	869.8	1,184.5	4,228.7	- 756.8
Malta	196.7	104.1	92.6	171.9	13.2	15.7	73.4	102.3	69.7	- 22.9
Netherlands	2,210.4	7,412.9	- 5,202.5	1,932.8	2,746.6	470.0	4,393.9	7,610.5	- 5,677.7	- 475.3
Austria	1,698.2	3,245.6	- 1,547.4	1,484.9	221.1	519.1	2,610.8	3,351.0	- 1,866.1	- 318.7
Poland	15,563.3	4,667.3	10,896.0	13,608.3	705.2	597.8	3,285.4	4,588.4	9,020.0	- 1,876.1
Portugal	3,809.9	1,833.9	1,976.1	3,331.4	154.7	289.5	1,357.1	1,801.3	1,530.1	- 446.0
Romania	6,308.4	1,714.8	4,593.6	5,516.0	162.2	205.8	1,315.2	1,683.2	3,832.8	- 760.8
Slovenia	1,052.5	445.9	606.5	920.3	77.4	60.0	301.3	438.7	481.6	- 125.0

	Pre-Brexit			Post-Brexit						
	Receipts (EUR m)	Contributions (EUR m)	Balance (EUR m)	Receipts (EUR m)	Customs (EUR m)	VAT (EUR m)	GNI-related (EUR m)	Total (EUR m)	New Balance (EUR m)	Impact (EUR m)
Slovak Republic	2,731.0	817.6	1,913.4	2,387.9	105.3	90.0	607.7	803.0	1,584.9	- 328.5
Finland	1,208.9	2,072.9	- 864.0	1,057.0	154.1	288.7	1,591.9	2,034.7	- 977.7	- 113.6
Sweden	1,596.5	4,065.7	- 2,469.2	1,395.9	548.0	321.6	3,331.6	4,201.2	- 2,805.3	- 336.1

Net contributors to the EU indicated in red.

Table B5.2: Option (II) outcomes in the event of no UK/EU Trade Deal

	Pre-Brexit			Post-Brexit						
	Receipts (EUR m)	Contributions (EUR m)	Balance (EUR m)	Receipts (EUR m)	Customs (EUR m)	VAT (EUR m)	GNI-related (EUR m)	Total (EUR m)	New Balance (EUR m)	Impact (EUR m)
Belgium	7,073.7	6,234.4	839.4	6,532.4	2,535.5	562.6	3,123.5	6,221.7	310.8	- 528.6
Bulgaria	2,519.4	521.7	1,997.7	2,326.6	105.0	71.6	353.5	530.1	1,796.5	- 201.2
Czech Republic	5,787.8	1,795.5	3,992.3	5,344.9	370.8	219.8	1,257.9	1,848.5	3,496.4	- 496.0
Denmark	1,536.6	2,769.1	- 1,232.5	1,419.0	542.0	342.2	1,993.4	2,877.6	- 1,458.6	- 226.1
Germany	11,370.4	29,719.7	- 18,349.2	10,500.3	6,408.8	2,093.1	23,857.9	32,359.8	- 21,859.4	- 3,510.2
Estonia	561.1	233.4	327.7	518.1	38.2	34.6	162.0	234.8	283.4	- 44.4
Ireland	1,805.2	2,310.9	- 505.8	1,667.0	1,901.7	258.2	1,706.4	3,866.3	- 2,199.2	- 1,693.5
Greece	6,724.2	1,751.8	4,972.4	6,209.7	244.2	222.0	1,321.0	1,787.2	4,422.5	- 549.9
Spain	12,753.5	11,927.1	826.4	11,777.5	2,387.7	1,588.3	8,424.0	12,400.0	- 622.4	- 1,448.8
France	14,124.8	22,045.3	- 7,920.5	13,043.9	2,644.5	3,133.7	16,759.2	22,537.4	- 9,493.5	- 1,573.0
Croatia	600.8	472.4	128.4	554.9	61.4	72.5	339.2	473.0	81.8	- 46.6
Italy	11,641.3	16,668.9	- 5,027.6	10,750.5	2,550.1	1,996.2	12,281.9	16,828.2	- 6,077.7	- 1,050.1
Cyprus	240.7	183.1	57.6	222.3	57.0	27.8	130.2	215.1	7.2	- 50.4
Latvia	1,032.9	283.2	749.8	953.9	51.3	34.2	196.3	281.8	672.1	- 77.7
Lithuania	1,396.5	436.0	960.5	1,289.6	100.5	52.6	289.1	442.1	847.5	- 113.0
Luxembourg	1,699.9	364.9	1,335.0	1,569.8	27.1	59.2	277.0	363.3	1,206.4	- 128.6
Hungary	6,190.8	1,205.4	4,985.4	5,717.1	221.6	157.7	869.8	1,249.1	4,468.0	- 517.4
Malta	196.7	104.1	92.6	181.6	28.5	15.7	73.4	117.6	64.0	- 28.6

	Pre-Brexit			Post-Brexit						
	Receipts (EUR m)	Contributions (EUR m)	Balance (EUR m)	Receipts (EUR m)	Customs (EUR m)	VAT (EUR m)	GNI-related (EUR m)	Total (EUR m)	New Balance (EUR m)	Impact (EUR m)
Netherlands	2,210.4	7,412.9	- 5,202.5	2,041.3	3,392.9	470.0	4,393.9	8,256.8	- 6,215.5	- 1,013.0
Austria	1,698.2	3,245.6	- 1,547.4	1,568.2	286.1	519.1	2,610.8	3,416.0	- 1,847.8	- 300.3
Poland	15,563.3	4,667.3	10,896.0	14,372.3	914.5	597.8	3,285.4	4,797.7	9,574.7	- 1,321.3
Portugal	3,809.9	1,833.9	1,976.1	3,518.4	234.9	289.5	1,357.1	1,881.5	1,636.9	- 339.2
Romania	6,308.4	1,714.8	4,593.6	5,825.7	227.6	205.8	1,315.2	1,748.6	4,077.1	- 516.5
Slovenia	1,052.5	445.9	606.5	971.9	85.7	60.0	301.3	447.0	524.9	- 81.6
Slovak Republic	2,731.0	817.6	1,913.4	2,522.0	141.6	90.0	607.7	839.3	1,682.7	- 230.7
Finland	1,208.9	2,072.9	- 864.0	1,116.4	195.7	288.7	1,591.9	2,076.3	- 959.9	- 95.8
Sweden	1,596.5	4,065.7	- 2,469.2	1,474.3	692.6	321.6	3,331.6	4,345.8	- 2,871.6	- 402.3

Net contributors to the EU indicated in red.

About the Author

William Norton is a non-practising solicitor who has worked in the City of London as a tax adviser and as a policy adviser in Westminster. He was a core member of the James Review on Taxpayer Value and the Conservative Party Policy Unit (2004-5), working on plans for public sector reform, deregulation and expenditure control. He worked for the victorious designated lead campaigns in the North East referendum (2004), the AV referendum (2011) and the EU referendum (2016).

Among numerous articles, papers and books, William is the author of *Monument and Bank: Capitalism and the Anglo-Saxon Mind* (SAU, 2011) and *Mitigating the impact of tariffs on UK-EU trade* (Civitas, 2017). He was also one of the core secretariat responsible for *Change or Go: How Britain would gain influence and prosper outside an unreformed EU* (Business for Britain, 2015).

William has been a local councillor and a parliamentary candidate, and is currently Research Director for an MEP.

www.theredcell.co.uk