

2<sup>nd</sup> December 2025

## **OBR statement in 2021 that Brexit would cause a 'long-run' 4% loss of GDP**

### *Introduction*

It looks like the debate about the costs and benefits of Brexit will be aired again, with much focus on the Office for Budget Responsibility statement that Brexit would cause a 'long-run' 4% loss of GDP.

The aims of this paper are:

1. to help bring about a common understanding of what that means; and
2. to put some real numbers around the scenario.

### *Interpreting the statement*

'Long-run' is taken to be 20 years, with the effect starting in 2021. The claim is interpreted as meaning that every year 0.2% of growth would be lost from what it would have been if the UK had remained in the EU. This would then mean that if GDP growth now were to be 1.6% in any one year, it would have been 1.8% if the UK had remained in the EU.

After 20 years of the accumulation of this annual give-up of 0.2%, the UK's economy is 4% smaller than it would have been if the UK had remained in the EU.

### *UK GDP under 'Out' and 'In' scenarios*

Starting with 2021, we can then work out what GDP would have been for 2021-4 if the UK had not left the EU, all in £billions:

UK GDP - Statista		<a href="https://www.statista.com/statistics/281744/gdp-of-the-united-kingdom/">https://www.statista.com/statistics/281744/gdp-of-the-united-kingdom/</a>					
	GDP/£	Difference	Growth	EU uplift	In-EU growth	In £	In-EU GDP
2020	2,405						
2021	2,610	205	8.52%	0.20%	8.72%	210	2,615
2022	2,745	135	5.17%	0.20%	5.37%	140	2,755
2023	2,752	7	0.26%	0.20%	0.46%	13	2,768
2024	2,783	31	1.13%	0.20%	1.33%	37	2,805

Basing ourselves on the latest OBR projections for economic growth in 2025-30, we can work out what GDP is projected to be up to and including 2030 if the UK were not outside the EU:

OBR GDP growth projections - OBR Economic & Fiscal Outlook of November 2025 p. 7							
	Growth	Growth/£	GDP/£	EU uplift	In-EU growth	In £	In-EU GDP
2025	1.50%	42	2,825	0.20%	1.70%	48	2,852
2026	1.40%	40	2,864	0.20%	1.60%	46	2,898
2027	1.60%	46	2,910	0.20%	1.80%	52	2,950
2028	1.50%	44	2,954	0.20%	1.70%	50	3,000
2029	1.40%	41	2,995	0.20%	1.60%	48	3,048
2030	1.60%	48	3,043	0.20%	1.80%	55	3,103

Then we can assume that the OBR's trend line for 2025-30 is maintained from 2031-40:

Extrapolating 1.5% annual GDP growth outside the EU							
	Growth	Growth/£	GDP/£	EU uplift	In-EU growth	In £	In-EU GDP
2031	1.50%	46	3,089	0.20%	1.70%	53	3,156
2032	1.50%	46	3,135	0.20%	1.70%	54	3,209
2033	1.50%	47	3,182	0.20%	1.70%	55	3,264
2034	1.50%	48	3,230	0.20%	1.70%	55	3,319
2035	1.50%	48	3,278	0.20%	1.70%	56	3,376
2036	1.50%	49	3,327	0.20%	1.70%	57	3,433
2037	1.50%	50	3,377	0.20%	1.70%	58	3,492
2038	1.50%	51	3,428	0.20%	1.70%	59	3,551
2039	1.50%	51	3,479	0.20%	1.70%	60	3,611
2040	1.50%	52	3,532	0.20%	1.70%	61	3,673

Finally we can draw up a combined picture from 2021-2040, and extrapolate that by the end of 2040 UK GDP would be higher by £1.34 trillion in the case of remaining in the EU:

	UK GDP ex-EU	UK GDP in-EU	Difference in £	Difference in %
2020	2,405	2,405	0	0.00%
2021	2,610	2,615	5	0.18%
2022	2,745	2,755	10	0.37%
2023	2,752	2,768	16	0.58%
2024	2,783	2,805	22	0.77%
2025	2,825	2,852	27	0.97%
2026	2,864	2,898	34	1.17%
2027	2,910	2,950	40	1.37%
2028	2,954	3,000	46	1.57%
2029	2,995	3,048	53	1.77%
2030	3,043	3,103	60	1.97%
2031	3,089	3,156	67	2.17%
2032	3,135	3,209	74	2.37%
2033	3,182	3,264	82	2.58%
2034	3,230	3,319	90	2.78%
2035	3,278	3,376	98	2.98%
2036	3,327	3,433	106	3.18%
2037	3,377	3,492	114	3.39%
2038	3,428	3,551	123	3.59%
2039	3,479	3,611	132	3.79%
2040	3,532	3,673	141	4.00%
			1,340	

### *Cost of membership*

To give context to this figure, one should also project the cost of membership, on the narrow base of the financial obligations to pay entered into by the UK, minus the 'rebate' (actually an abatement of the obligation because it was deducted before money was paid) and minus the amount that flows back as grants and other payments from EU bodies into the UK.

The UK's budget contribution equates to its share of EU GNI, which has been taken to be 12%, although the element that is the 'Member state cash contribution' has been subject to the rebate/abatement, bringing it down to about 8%.

In 2020, the EU budget was EUR174 billion, as visible on the [https://commission.europa.eu/strategy-and-policy/eu-budget/long-term-eu-budget/2014-2020/spending-and-revenue\\_en](https://commission.europa.eu/strategy-and-policy/eu-budget/long-term-eu-budget/2014-2020/spending-and-revenue_en) webpage.

These are its 'Own resources' and include – under 'Other' – revenues made by itself, including taxes from EU staff salaries, bank interest, fines, and contributions from third countries. The rest comes from the member states including Customs duties and VAT which belong legally to the EU but for which the member states act as collection agents (in EUR millions):

Traditional (customs duties)	19,867
VAT	17,834
GNI-based - cash contributions	122,389
Sub-total	160,090
Other	14,216
	174,306

Based on that overall budget and the UK's shares as stated earlier, the UK's 2020 obligation should have been (in EUR millions):

Traditional (customs duties)	19,867	12%	2,384
VAT	17,834	12%	2,140
GNI-based - cash contributions	122,389	8%	9,791
	160,090		14,315

That EUR14.3 billion approximates to £13 billion for 2020.

Then we have the House of Commons Library study CBP-7886 of June 2022 'The UK's contribution to the EU Budget' p. 9, in £billions:

	2016	2017	2018	2019	2020
Traditional (customs duties)	2,463	3,172	2,608	2,711	2,352
VAT	2,677	3,040	3,074	2,966	2,822
GNI-based - cash contributions	11,856	12,154	14,244	14,067	16,077
VAT & GNI adjustments	0	258	-2,505	-777	990
Gross obligation	16,996	18,624	17,421	18,967	22,241
Rebate	3,878	5,633	4,247	4,516	5,201
Net obligation	13,118	12,991	13,174	14,451	17,040
EU credits	3,493	4,084	4,279	5,022	4,061
	9,625	8,907	8,895	9,429	12,979

This bears out the previous calculation, namely that in 2020 the cost of membership was £13 billion per annum.

#### *Drivers of future cost of membership*

The future cost of membership would have been based on the settlements for the Multiannual Frameworks 2021-7, 2028-34, and the first six years of 2035-41.

It will be noted that the UK's liability during 2016-20 was neither level, nor a steady rise, but a fall, then a rise, and then a significant rise for 2020 compared to 2019.

A plastics levy has been added as a new line of 'Own resources' starting in 2021. Putting a number against that has been an exercise in guesswork: EUR5 billion per annum which is approximately ¼ of the 'Own resources' from Customs duties.

The MFFs for 2028-34 and 2035-41 are proposed by the European Commission to add further new lines of 'Own resources' to meet the debt repayments for the EUR750 billion Next Generation EU programme, which should be spread over 15 years (i.e. EUR50 billion per annum).

The EUR50 billion figure could in principle be reduced because 45% of the EUR750 billion was distributed as loans that should be repayable. However, defaults and fraud are expected to reduce loan repayments to 40%, adding 5% to the 55% of the programme that was distributed as grants. Thus 60% of the EUR750 billion will have to be found from 'Own resources' over a 15-year period, 14 years of which fall within the scope of this study. That is EUR30 billion per annum.

Here is how the UK's contribution might have looked, based on the calculation of the likely outturn of 2020 as calculated above, with Plastics kicking in from 2021, and then Next Generation EU kicking in from 2028:

Traditional (customs duties)	19,867	12%	2,384
VAT	17,834	12%	2,140
GNI-based - cash contributions	122,389	8%	9,791
Plastics	5,000	12%	600
Next Generation EU	30,000	12%	3,600
	195,090		18,515

#### *Assumptions used for the UK's future cost of membership 2021-40*

The assumptions made were:

- that the abatement and the credits back were retained;
- that the baseline for 2021 was the outcome of 2020;
- that all the amounts would escalate in line with the UK's GDP growth as an EU member state, had the UK remained one.

If this third assumption had not been made, there would have been a risk of an exaggeration of benefits without a reflection of the associated costs.

#### *UK's future cost of membership 2021-40*

The result is the following calculation in £millions:

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Traditional (customs duties)	2,352	2,557	2,695	2,707	2,743	2,789	2,834	2,885	2,934	2,981	3,035	3,086	3,139	3,192	3,246	3,302	3,358	3,415	3,473	3,532	3,592
VAT	2,822	3,068	3,233	3,248	3,291	3,347	3,400	3,462	3,520	3,577	3,641	3,703	3,766	3,830	3,895	3,961	4,029	4,097	4,167	4,238	4,310
GNI-based - cash contributions	16,077	17,480	18,419	18,502	18,748	19,067	19,372	19,720	20,056	20,376	20,743	21,096	21,454	21,819	22,190	22,567	22,951	23,341	23,738	24,142	24,552
VAT & GNI adjustments	990	1,076	1,134	1,139	1,154	1,174	1,193	1,214	1,235	1,255	1,277	1,299	1,321	1,344	1,366	1,390	1,413	1,437	1,462	1,487	1,512
Plastics	0	600	632	635	644	654	665	677	688	699	712	724	736	749	762	775	788	801	815	829	843
Next Generation EU	0	0	0	0	0	0	0	0	3,600	3,658	3,723	3,787	3,851	3,917	3,983	4,051	4,120	4,190	4,261	4,333	4,407
Gross obligation	22,241	24,781	26,113	26,231	26,579	27,031	27,464	27,958	28,033	32,546	33,132	33,695	34,268	34,850	35,443	36,045	36,658	37,281	37,915	38,560	39,215
Rebate	5,201	5,655	5,959	5,986	6,065	6,168	6,267	6,380	6,488	6,592	6,711	6,825	6,941	7,059	7,179	7,301	7,425	7,551	7,679	7,810	7,943
Net obligation	17,040	19,127	20,154	20,246	20,514	20,863	21,197	21,578	25,545	25,954	26,421	26,870	27,327	27,792	28,264	28,745	29,233	29,730	30,236	30,750	31,272
EU credits	4,061	4,415	4,652	4,674	4,736	4,816	4,893	4,961	5,066	5,147	5,240	5,329	5,419	5,511	5,605	5,700	5,797	5,896	5,996	6,098	6,202
	12,979	14,711	15,502	15,572	15,779	16,047	16,304	16,597	20,479	20,807	21,182	21,542	21,908	22,280	22,659	23,044	23,436	23,834	24,240	24,652	25,071

#### *Missing elements in the UK's cost of membership*

The cost of membership will no doubt be argued over, as it does not contain:

- the direct costs to the UK government and legal apparatus of managing membership (appointing and paying commissioners, MEPs, their costs, processing and codifying new EU regulations and directives etc.);

- the costs to UK businesses and public sector entities of adopting and complying with new EU regulations and directives etc.;
- the costs of Freedom of Movement (benefits and other publicly-funded support for citizens of other EU member states who come to the UK to live).

### *Loss of tax revenues*

The final aspect is the loss of tax revenues. This should surely be based on the annual tax burden as a percentage of GDP, and therefore be directly calculated from the GDP figures.

The annual tax burden is an estimate, and has not been gone into in depth as to its applicability to trade with the EU.

The burden has been rising from 35% of GDP, and is set to rise further towards 38.5% of GDP.

### *Projected GDP along with UK's future cost of membership 2021-40 and loss of tax revenues*

This is the final table, in £billions, pulling together all the previous tables:

	UK GDP ex-EU	UK GDP in-EU	Difference in £	Difference in %	Cash cost of membership	UK tax burden	Tax give-up
2020	2,405	2,405	0	0.00%			
2021	2,610	2,615	5	0.18%	13	35.0%	2
2022	2,745	2,755	10	0.37%	15	35.5%	4
2023	2,752	2,768	16	0.58%	16	35.5%	6
2024	2,783	2,805	22	0.77%	16	35.5%	8
2025	2,825	2,852	27	0.97%	16	36.0%	10
2026	2,864	2,898	34	1.17%	16	37.0%	12
2027	2,910	2,950	40	1.37%	16	38.0%	15
2028	2,954	3,000	46	1.57%	17	38.5%	18
2029	2,995	3,048	53	1.77%	20	38.5%	20
2030	3,043	3,103	60	1.97%	21	38.5%	23
2031	3,089	3,156	67	2.17%	21	38.5%	26
2032	3,135	3,209	74	2.37%	22	38.5%	29
2033	3,182	3,264	82	2.58%	22	38.5%	32
2034	3,230	3,319	90	2.78%	23	38.5%	35
2035	3,278	3,376	98	2.98%	22	38.5%	38
2036	3,327	3,433	106	3.18%	23	38.5%	41
2037	3,377	3,492	114	3.39%	23	38.5%	44
2038	3,428	3,551	123	3.59%	23	38.5%	47
2039	3,479	3,611	132	3.79%	24	38.5%	51
2040	3,532	3,673	141	4.00%	24	38.5%	54
			1,340		392		513

### *Summary*

Under these calculations based upon the reading of the OBR statement laid out at the start:

- the UK economy would be larger by £1.34 trillion in 2040 than it will be given that the UK is not in the EU;
- that extra GDP would bring in an extra £513 billion in tax over the same period, if the average tax burden on the UK as a percentage of GDP is applied to this extra GDP;
- the net cost of membership would be £392 billion over the same period;
- the missing elements in the cost side appear, on the face of it, to be easier to list than any gaps in the financial benefits side, though possibly not quite as easy to proceed to put numbers against.

*Next steps*

Is this what those who campaign for the UK to re-join the UK understand by the OBR claim?

Do the numbers contained in this paper bear a resemblance to the numbers they would calculate themselves?

If so, then at least we have a common basis upon which to pursue a discussion.

If not, what are the differences?

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