ECONOMICS RESEARCH

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UK: The Brexit 'divorce bill'

How much could it be?

In this note, we set out details of the main elements of the potential financial settlement between the UK and EU that will form part of Brexit negotiations.

At this preliminary stage, we do not seek to refine the wide range of estimates that have already been published. For example, €15bn at the lower end of the House of Lords EU Committee Report and €73bn at the upper end of the Centre for European Reform Report.

Instead, we merely attempt to explain to those not familiar with EU finances how such a wide range of potential outcomes is possible. This is to provide context to interested Brexit-watchers about a significant part of the forthcoming negotiations between the UK and the EU.

The financial settlement set to be front-and-centre in Brexit negotiations

Now that the UK has formally notified the EU of its intention to terminate membership, by triggering Article 50, the negotiations can begin. The EU has made it clear that its stance will be that talks on a successor UK/EU free-trade deal will only come once 'sufficient progress' has been made with the so-called divorce negotiations.

To stress an important point, in other words, there are effectively two Brexit negotiations, one to serve the objective of extricating the UK from its current relationship as a member of the EU, and a second to establish the terms for its new future dealings with the EU from after the time Brexit takes effect. The EU's position is that these two negotiations must come in this order, whereas the UK would prefer the two to run concurrently.

Effectively this means that in-depth discussion of the 'divorce bill', the cost associated with winding up the UK's membership of the EU, is likely to come sooner rather than later in the Brexit proceedings.

Although many press reports mention the prospect of the EU presenting the UK with a 'divorce bill' of €60bn, it remains to be seen exactly at what size the demand will be set. Equally, we do not know what the UK government's opening position will be on the financial settlement.

In this note we therefore attempt to introduce some of the relevant details of EU finances, so that Brexit-watching readers feel better equipped to follow the forthcoming negotiations with an understanding of how any so-called 'divorce bill' might be determined.

This note does not include a discussion on the legal aspects of any Brexit-related financial settlements. Neither does it conclude with any normative statements on the magnitude of any potential EU membership termination payment for the UK. Furthermore, this is not a comprehensive study of *all* aspects of Brexit's financial negotiations.

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But rather than dwelling further on what this note does not do, instead, to be clear, the objective is simply to introduce and explain some of the central principles of EU finances that we expect it will be useful to have an understanding of for when the negotiations get going.

There are three main elements of a potential Brexit bill that the UK could be presented with. We address each of these in turn, and then simply note that a range of other factors will be relevant too in the final settlement, rather than go into great detail on each of those as well.

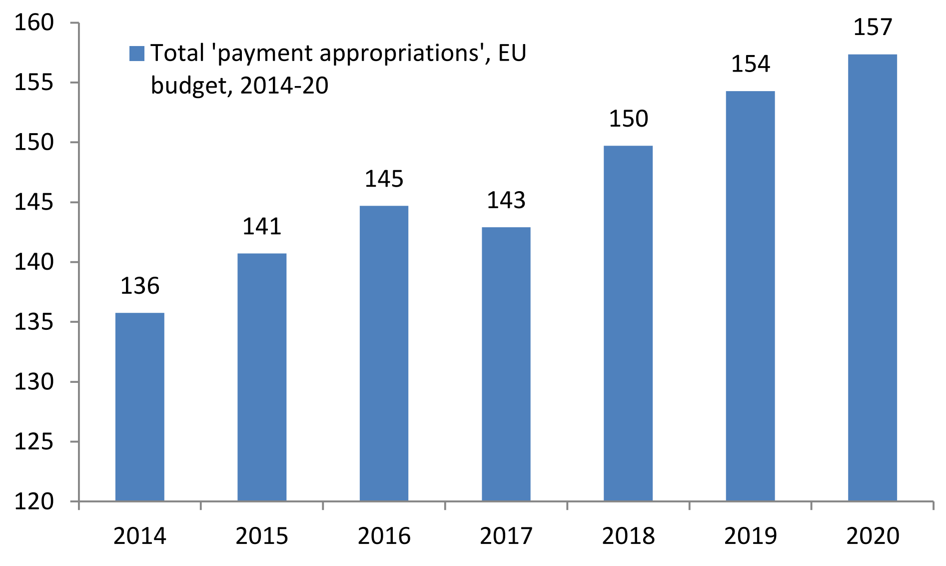
In what follows, we draw primarily on evidence presented in the House of Lords EU Committee report, *Brexit and the EU budget*[1], but also on the Centre for European Reform's (CER) report, *The €60 billion Brexit bill*[2].

1) The UK is set to leave the EU in 2019, but the budget has already been agreed until 2020

The first part of any potential bill that the EU could present to the UK relates to the current EU budget round. It is called the *Multiannual Financial Framework (MFF)* and runs from 2014-20. Member states agreed in advance how much total EU spending there would be for each year out to 2020 (Exhibit 1).

They also agreed the formula for who-pays-what into the budget, to make sure the aggregate contributions of the member states are sufficient to cover the spending plans each year. As one of the largest economies in the EU, the UK is persistently a net contributor to the EU budget (Exhibit 2).

Exhibit 1: Annual total EU budget spending plans, 2014-20, €bn



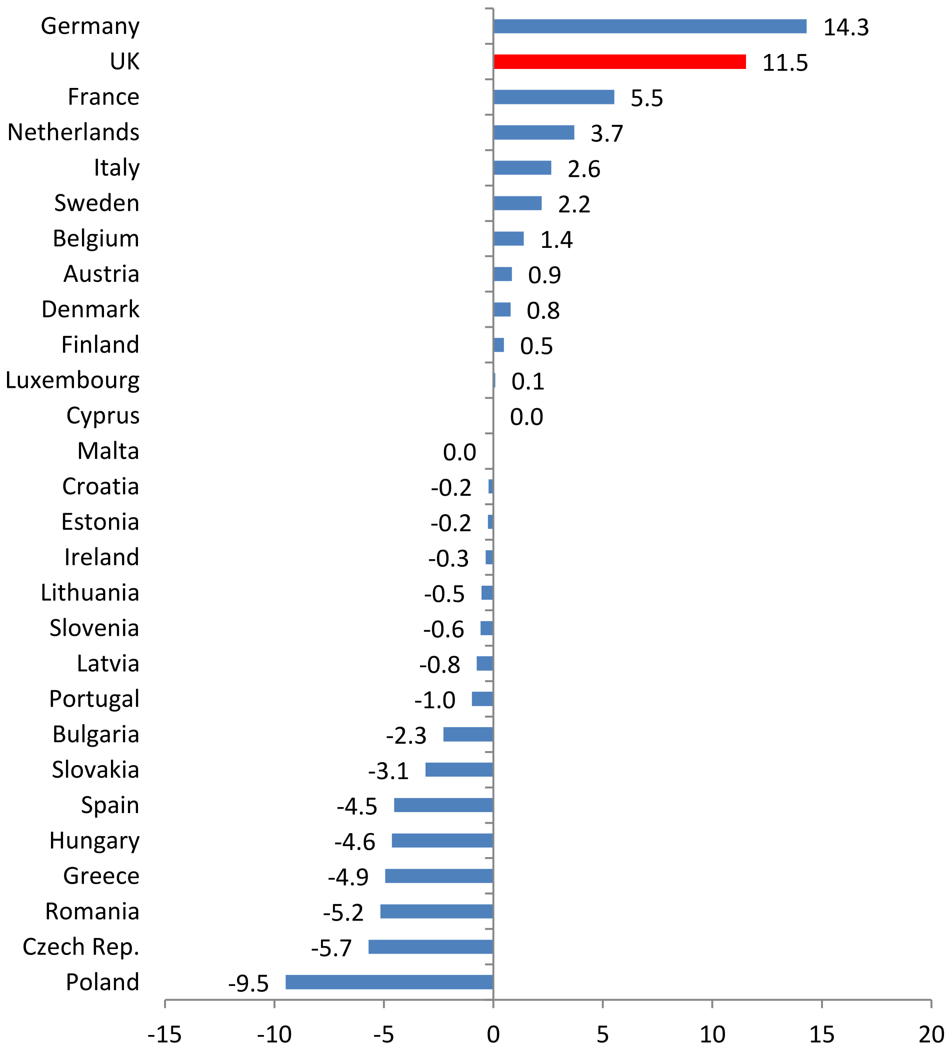
Sources: EU Commission – Mid-term review MFF 2014-20 web pages, RBC Capital Markets

The EU budget (as shown in Exhibit 1) is generally around 1% of the combined Gross National Income (GNI) of the member states. It is spent on a number of programmes that have economic growth and employment objectives, as well as other economic initiatives to promote 'social and territorial cohesion'. Agriculture programmes are also a significant part of EU expenditure. Much of the budget, determined by the MFF, that used to support these objectives is managed through five European Structural and Investment Funds (ESIFs).

1 Brexit and the EU budget, House of Lords EU Committee, published 4 March 2017

2 The €60 billion Brexit bill, Alex Barber, Centre for European Reform, published February 2017

Exhibit 2: Net contributions to EU budget in 2015, €bn



Sources: EU budget 2015 – Financial Report, RBC Capital Markets

Given that the UK is scheduled to leave the EU by Q1 2019 (under the terms of Article 50), but the MFF has already set spending until Q4 2020, this leaves a gap of 21 months where the other EU nations would either be required to increase their own net contributions, or cut spending, in the absence of a net contribution from the UK.

One point of view is that the UK committed to this profile of spending for the MFF long before the UK's EU referendum result, so should make its contributions until the end of 2020 anyway. Alternatively, others will claim that a clean break from the EU, under the terms of Article 50, means the UK should be free from all its Treaty obligations including budget payments as soon as Brexit is official in Q1 2019.

How much would the bill be if the EU demanded the UK pay its budget contributions to the end of 2020, in line with the MFF it agreed to, prior to Brexit? As the *Office for Budget Responsibility* (OBR) has detailed forecasts for the UK's contribution to the EU budget into the future, this question can be answered reasonably accurately. See Exhibit 3.

Exhibit 3: UK contributions to and receipts from EU budget, £bn

		Actual		Forecasts (Remain in EU counterfactual)		
Row ID	EU budget contributions and receipts components	Average (2010-15)	2015	2019-20	2020-21	Pro-rata (Brexit to end MFF)
	UK contributions to EU budget					
1	Duties and levies		3.1	3.5	3.5	6.1
2	VAT-based contribution		2.7	3.1	3.2	5.5
3	GNI-based contribution		13.8	14.9	15.3	26.4
4	Other income to EU institutions		0.0			0.0
5=1+2+3+4	**Total**		**19.6**	**21.5**	**22.0**	**38.1**
	UK receipts from EU budget					
6	Duties		0.8	0.7	0.7	1.2
7	Agriculture		2.5			
8	ASIFs		1.0			
9	Other receipts		0.1			
10=7+8+9	Agriculture + ASIFs + Other receipts			5.8	6.0	10.3
11	Rebate		4.9	4.6	4.8	8.2
12=6+10+11	**Total**		**9.2**	**11.1**	**11.5**	**19.8**
	UK net contributions to EU budget					
13=5-10	**Net (excluding private sector)**		**10.4**	**10.4**	**10.5**	**18.3**
14=13-15	**Net (including private sector)**		**8.3**	**8.4**	**8.5**	**14.8**
15	UK private sector receipts from EU budget	2.0				

Sources: OBR, House of Lords EU Committee Brexit and the EU budget report, 4 March 2017, RBC Capital Markets

The table shows, in £bn (converted to €bn later in Exhibit 9), the forecasts for gross contributions to the EU, receipts from the EU and the net position. Figures are shown for the net position, both before and after considering payments from the EU budget to the private sector in the UK.

The final column pro-rates the figures for the final two years of the MFF to estimate what the UK would have paid the EU had it continued as normal with EU membership for the 21-month period between Brexit at the end of Q1 2019 and Q4 2020 when the MFF ends.

If the principle were to be established that the UK had an obligation in this respect, this component of the bill could be anywhere between £14.8bn (row 14) and £38.1bn (row 5), depending on the outcome of negotiations about which items should be netted off.

Historical sensitivities around the UK's rebate (row 11) and uncertainty about which other programmes the UK may continue to be part of after Brexit (row 10) are amongst the factors that could determine where a settlement on this part of the bill would be made.

The overriding conclusion has to be merely that the range of possible outcomes is huge and no one can say with any certainty at this stage what the settlement will be. This is a point which is very clearly conveyed by the House of Lords' report, which arrives at a very similar range for this element of the calculation (based on analysis of historical average budget contributions, rather than our use of OBR forecasts).

2) Yet-to-be-funded EU budget commitments stretch even beyond 2020

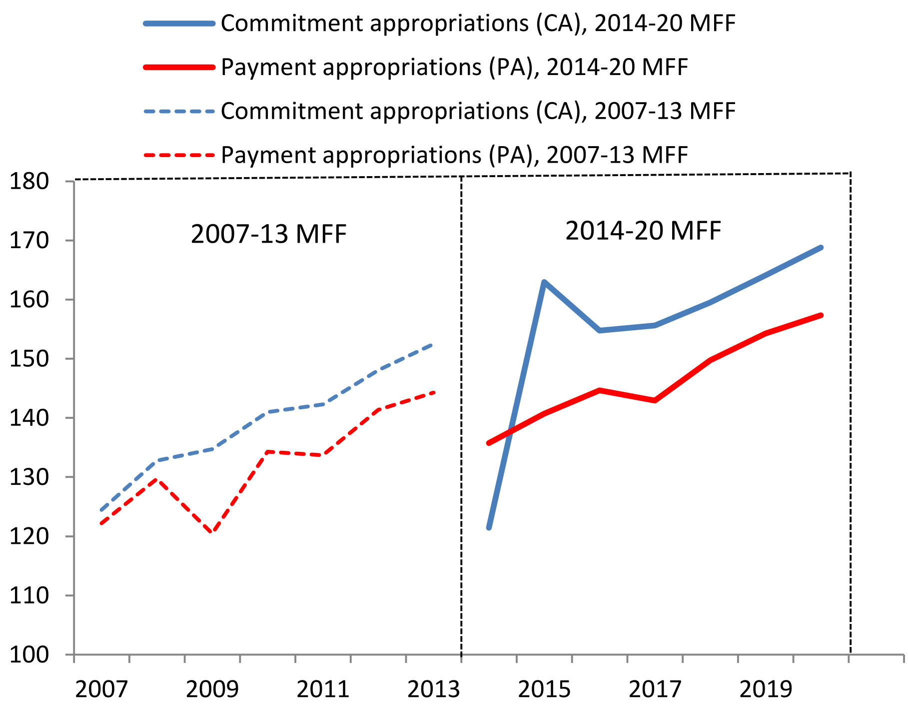
The second element of the 'divorce bill' also relates to the MFF process, and could be the largest single part of the bill the EU presents to the UK in the first instance.

By way of background, the EU budget is funded solely by the sum of net contributions of member states from year to year, and is not financed by issuing debt at the EU level. Therefore, in a given year, actual spending can only match the sum of the net contributions of member states. These are the amounts shown in Exhibit 1.

This does not tell the whole story on the EU budget framework though. In reality, it has to use cash it receives today to pay off bills it knew would be arriving years ago. By extension, it follows that long-term commitments made now will rely on cash continuing to flow into the EU accounts in the future.

To illustrate this, consider Exhibit 4. The solid red line is the amount the EU can actually spend in each year of the current MFF, and is equal to the total of net member state contributions (so hence is exactly the same data as used in Exhibit 1). In EU budget nomenclature these amounts go by the name of 'payment appropriations' (PA).

Exhibit 4: Size of annual EU budgets for cash spending (PA) and commitments (CA), €bn



Sources: EU Commission – Mid-term review MFF 2014-20 web pages and 2007-13 MFF web pages, RBC Capital Markets

This is distinct from 'commitment appropriations' (CA), shown in blue in Exhibit 4. The CA for a given year shows how much the EU budget for that year can commit to spending, even though the actual spending authorised in the budget may be spread over many subsequent years.

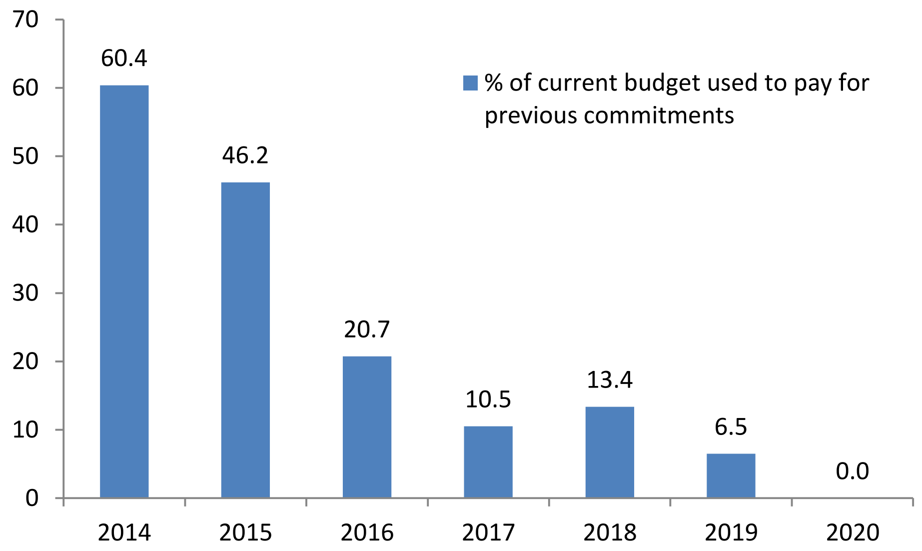
It won't escape readers' notice that in almost every year from 2007 to 2020, the CA budget figure exceeds the PA budget figure. In other words, the EU makes spending commitments into the future, in excess of the amounts it raises from member states' contributions.

Logically, for those plans to be realised, ultimately there must be an additional contribution from member states, which is yet to be paid. In EU budget parlance, this 'yet to be paid' concept is known by the French phrase *reste a liquider*, or RAL.

The EU accounts reveal that, at the end of the 2007-13 MFF, the RAL, or amount yet to be paid to cover the CA budget was €222bn. That is to say, commitments approved in that MFF period but falling due in the 2014-20 MFF would absorb €222bn of the cash raised in that 2014-20 MFF. With reference to the charts, the cash inflows represented by the solid red line in Exhibit 4 would be used to fund a good deal of the commitments represented by the dotted blue line.

Indeed, to illustrate, we attempted to estimate the proportion of the money being raised in each year of the current MFF being used to fund commitments made in the previous one. This is shown in Exhibit 5. In 2014, an estimated 60% of cash raised went to pay for commitments made previously.

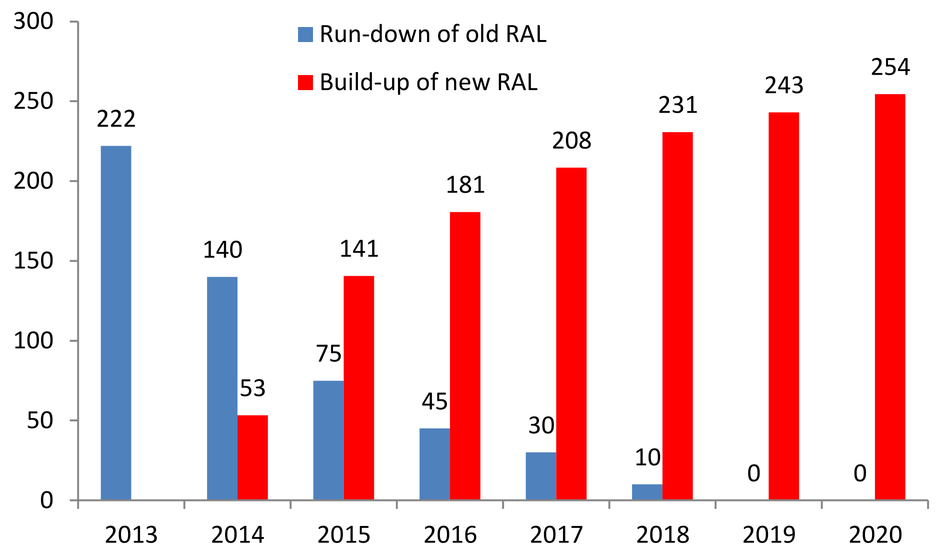
Exhibit 5: RBC's estimated percentage of current EU budget funds being used to fund commitments made in previous periods



Sources: EU Commission Mid-term review / revision of the multiannual financial framework 2014-20, RBC Capital Markets' estimates

Seen in isolation, this use of cash at the start of the 2014-20 MFF to run-down previous commitments serves to reduce RAL below the initial €222bn. However, in the broader context of new commitments made in the MFF, there is an additional build-up of new RAL. This is because the CA profile in the 2014-20 MFF continues to run ahead of the PA profile. Or, put differently, spending commitments continue to be made in excess of what member state contributions sum to.

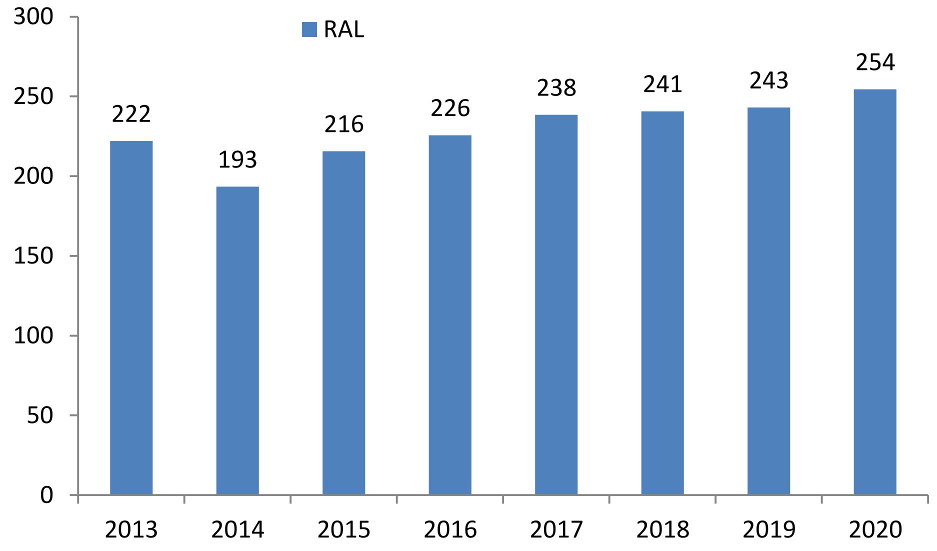
Exhibit 6: RBC interpretation of the evolution of 'yet to be paid' (RAL) EU budget funds 2013-20, €bn



Sources: EU Commission Mid-term review / revision of the multiannual financial framework 2014-20, RBC Capital Markets estimates

For the purpose of illustration, Exhibit 6 shows our attempt to estimate the run-down of RAL from the 2007-13 period and the subsequent build-up of new RAL in 2014-20, to the extent that the accounts allow us to do so. Netting these two off, Exhibit 7 shows how total RAL could be expected to evolve out to 2020.

Exhibit 7: RBC estimate of projected evolution of RAL ('yet to be paid') funds into the EU budget, €bn



Sources: EU Commission Mid-term review / revision of the multiannual financial framework 2014-20, RBC Capital Markets estimates

The bottom line is that at an estimated RAL of €254bn by the end of 2020, there is a question about whether the UK should be made to contribute to this 'yet to be paid' account.

In the event that a bill for RAL is presented to the UK, it isn't clear what share of the €254bn would apply. Exhibit 8 shows that a number of options would be under consideration, based on different principles for determining the UK share of the liabilities. These alternative scenarios for determining the UK share are taken from the House of Lords report. This suggests the RAL component of the divorce bill could plausibly be between €14-38bn.

Exhibit 8: Possible methods identified by the House of Lords' EU Committee for determining the UK's share of RAL liabilities of the EU, €bn

	2020 RAL:	254bn
Method for determining UK share	**%**	**EURbn**
UK contribution to EU budget, gross	15	38
UK contribution to EU budget, net of rebate	12	30
UK share of EU population	12.5	32
UK contribution to EU budget, net of rebate and payments to UK public sector	8	20
UK contribution to EU budget , net of rebate, payments to UK public and private sectors	5.5	14

Sources: House of Lords EU Committee Brexit and the EU budget report, 4 March 2017, RBC Capital Markets calculations

3) The EU staff pension scheme liabilities

The contributory defined-benefit pension scheme for EU staff is operated on a pay-as-you-go basis, meaning that pensions in payment are funded out of the EU's current budget, rather than a pool of assets built up from scheme members' contributions. Nevertheless, the EU accounts do have a capitalised value for total EU pension liabilities of €64bn (as of end-2015).

As above, the appropriate share of those liabilities to ask the UK to incur is open to question. At the lowest extreme it could be argued that only 4% of current EU staff are from the UK so that should be their share of the liability. This would amount to a bill of around €2.5bn.

Alternatively, as the EU staff pension scheme has an 8% share going to UK nationals in terms of current pensions in payment, this proportion would be a bill of about €5bn. At the top extreme, the proportions quoted in Exhibit 8 could also be used to try and settle this part of the separation. A 15% share would imply the UK's pension liability would be up to €9.6bn.

Once again, there is no definitive answer about what is the 'correct' amount for the EU to pitch to the UK when it comes to settling pension liabilities. The House of Lords' report also alludes to other research, which argues that the appropriate value of liabilities that should be considered is less than €64bn anyway. So, the uncertainty is not just over the UK's share of the liabilities, but also over the size of the liabilities themselves.

Other factors: smaller liabilities and the UK's share of EU assets

Thus far, we have set out what are likely to be the three main elements of a financial settlement that the EU presents to the UK as part of the Brexit negotiations. There are a number of other considerations, including a range of smaller categories of potential liabilities. Importantly though, rather than just focusing on the liabilities, an assessment of the appropriate share of the EU's assets to which the UK could be entitled will need to be made too.

In all likelihood, the coming months will provide other opportunities to drill down into some of these other potential elements of the divorce bill if, or when, they come into the limelight, both in terms of EU assets and liabilities. For now though, we simply note that a range of other individually smaller liabilities will be considered. The CER report suggests that this could result in an additional liability for the UK of between €5-6bn, and a further €10-12bn if some contingent liabilities / potential provisions for loans were also to be added.

As far as assets are concerned, the 2015 EU accounts record a total value for EU assets of €154bn. One simplistic assumption is that if the UK is required to pay a share of the EU's liabilities then it should be entitled to the same proportion of EU assets. Applying the percentage shares outlined in Exhibit 8, the UK's claim on EU assets could potentially be between €8.5bn (5.5%) and €23bn (15%).

This approach is almost certainly too facile. Evidence collected for the House of Lords' report suggested that only a fraction of total assets would be available to be divided up. With many of the assets recorded as loans that have corresponding liabilities, it is suggested that just the property, cash and available-for-sale assets should be deemed relevant. In the CER report this amounts to 'divisible' assets of just €22.5bn, of which a 12% UK share would be €2.8bn.

At the extremes then, the UK share of EU assets could be within a range of €2.8-23bn, although we acknowledge we have only given it the briefest possible consideration here.

Adding it all up

Without doubt, the main conclusion has to be that size of the financial settlement between the UK and the EU as a result of Brexit is unknowable at this stage. Ultimately, it will depend upon legal and political principles as well as the economic ones. It is outside the scope of this note to be drawn into legal and political aspects, but it is possible to use economic principles to establish guide markers for the range of values that will be at the heart of the negotiations in the Brexit financial settlement.

Bringing together the material presented above, Exhibit 9 presents ranges for the three main components of a potential Brexit divorce bill, as well as the other liabilities and offsetting assets to which the UK might be entitled. All figures are presented in €bn using a GBP/EUR exchange rate of 1.18 where values have previously been presented in £bn.

Exhibit 9: Estimated ranges for the UK share of EU liabilities and assets that could be used in determining the Brexit financial settlement, €bn

Liabilities	EUR bn
2014-20 MFF payments	17.5 - 45
RAL	14 - 38
EU pension scheme	2.5 - 9.6
Other liabilities	5 - 6
Contingent liabilities	10 - 12
Assets	
Various (property, cash, available-for-sale assets)	2.8 - 23

Sources: House of Lords EU Committee Brexit and the EU budget report, 4 March 2017, The €60 billion Brexit bill, Centre for European Reform, RBC Capital Markets estimates

As the purpose of this note is to provide a non-political assessment of the financial settlement, we will refrain from offering much by way of additional comment on the ranges in Exhibit 9. However, it should be stressed that we would regard it as inappropriate, and far too blunt an interpretation, to simply sum either the upper or lower end of the ranges in each category in trying to determine the extremes of the Brexit divorce bill.

For example, at the upper end it doesn't seem too controversial to suggest that a €45bn bill for the UK in respect of payments to cover the last 21 months of the 2014-20 MFF is an overestimation. That would be consistent with demanding of the UK all its contributions to the EU budget over that period, without recognising any of the netting payments the UK would receive from the EU during that time. The UK rebate and certain other receipts may be keenly contested, but some probably wouldn't, so could be netted off without too much disagreement.

Caution is also needed with interpretation at the bottom end of the ranges in Exhibit 9. All the numbers should be interpreted as potential values that could apply *if* it is established that the UK has an obligation in each category. Again, we leave it to readers to assess the politics that will come into those negotiations, but the UK may seek to argue that for some of these categories, at least, it isn't obliged to incur the liability at all.

The House of Lords report concludes that 'it is possible to arrive at various, widely ranging, figures for any EU claim against the UK'. At the lower end it mentions a bill of €15bn, but then at the top end it says the bill 'could be even larger than the oft-quoted figure of €60bn'.

The CER report applies three methods to estimate the bill. The bottom end of the range of the lowest estimate is €25bn, and the top end of the range of the highest estimate is €73bn.

Our goal in this note has not been to refine these existing estimates for the Brexit financial settlement. Instead, we have merely sought to outline what the main components are. This is so that readers can assess for themselves, before negotiations start, where the scope lies for trade-offs, concessions, deals, stumbling blocks and stand-offs. Given the large range of values that have been shown to be possible for the divorce bill, these negotiations look set to be a major part of the Brexit process and spillover into influencing other important aspects of the final deal.

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