

Brexit: EU-UK Economic relations in the aftermath of the Eurozone debt crisis

خروج بريطانيا من الاتحاد الأوروبي: العلاقات الاقتصادية بين الاتحاد الأوروبي والمملكة المتحدة
في أعقاب أزمة ديون منطقة اليورو

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الملخص: تهدف هذه الدراسة إلى تقديم مداخل تحليلية تتزامن مع خروج بريطانيا من الاتحاد الأوروبي من خلال الربط بين علاقة مساهمات المملكة المتحدة في ميزانية الاتحاد وتداعيات أزمة الديون السيادية في منطقة الأورو. كما نستعرض، وفقا لإحصاءات اقتصادية، العلاقات الاقتصادية المستقبلية بين بريطانيا والاتحاد الأوروبي من خلال تحديد ثلاث سيناريوهات محتملة لفاتورة خروج بريطانيا وتأثيرها الاقتصادي على كلا الطرفين. وما يصب عن قرار خروج بريطانيا من الاتحاد الأوروبي في مصلحة الاقتصاد البريطاني بغض النظر عن تأثيره في مستقبل السبعة وعشرون عضوا الباقين في الاتحاد، عندما يصبح انسحابها نهائيا.

الكلمات مفتاحية: خروج بريطانيا من الاتحاد الأوروبي؛ الاتحاد الأوروبي؛ أزمة الديون الأوروبية؛ مساهمات المملكة المتحدة؛ فاتورة الانسحاب.

Abstract: This study aims to give a timely input of Brexit as it develops an analytical framework through which the linkage between UK contributions to the EU budget and the fallout from the Eurozone debt crisis. It surveys, based on statistics the UK-EU future economic relations by identifying three withdrawal bill scenarios, and its economic effect on both parties. As a result, How Brexit focus on the favor of the British economy tending to be neglect to its effect on the future of the remaining EU 27 if Britain stick to the withdrawal.

Key Words: Brexit; EU, Eurozone debt crisis; UK contributions; Withdrawal bill.

JEL Classification : F45 ; H63 ; J51

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Introduction:

The European sovereign debt crisis that emerged at the end of 2009, sparked with Greece announcing a public deficit of 12.7 % of GDP and debt amounting to 113% of GDP (Council of the European Union, October 2017). This crisis contributed to the fall of confidence in sovereign debt and European banks that forced Greece, Ireland, Portugal, Spain and Cyprus into difficult negotiations with the European Union, followed by bail-out programs that imposed various combinations of fiscal austerity and structural reform on them.

Essentially, the debt crisis exposed the inadequate design of monetary integration and the poor implementation of the Stability and Growth Pact, the EU-wide mechanism for regulating fiscal policy. Facing rising unemployment, economic stagnation, and ballooning public deficits, member states were unable to devalue their currencies because of the monetary union (Martill, 2018). Years afterward, the effects of the crisis are still palpable. The Greek economy has lost a quarter of its value; levels of unemployment are close to 20% in parts of southern Europe; and the average level of economic activity in the Eurozone as a whole has only now regained its level before the global financial crisis (Hall, 2016).

Secondly, the post-crisis situation in Europe has been compounded by sweeping financial changes across the area. EU institutions and the International Monetary Fund (IMF) agree on a rescue package for Greece, in May 2010, Ecofin ministers approve a European rescue package worth €500 billion, comprising the European financial stability facility (EFSF) and the European financial stability mechanism (EFSM).

Therefore, regarding the UK as one of the largest economies in the EU, it's one of the countries asked to pay most towards the EU budget (UK made an average net contribution of £8.5 billion between 2011 and 2015, therefore in 2017 and 2018 it come to £8.9/10 billion (Keep, The UK's contribution to the EU Budget, 2018)), So the cost of this to the British tax-payer is one of the contentious issues around UK membership of the EU, It's also accompanied by interventions of the fiscal and monetary EU authority by limiting UK's business options with global economic markets.

Finally, it looks like the European solidarity is crumbling by the decision of the United Kingdom to leave the Union (Brexit) after a referendum on 23 June 2016. Both sides endure economic consequences of this withdrawal shock. markets were caught by surprise, Sterling instantly collapsed, from \$1.50 to \$1.33. However, that means the EU budget will no longer benefit from the large amounts of UK contributions, and this will lead to the erection of new barriers to the exchange of goods, services, and people with the remaining 27-member states. Accordingly, the following problematic is posed:

Is the withdrawal of UK from EU going to be a fragmentation to the Union as an outcome of the debt crisis, Or in the favor of the British economy?

In this study, we wish to provide some empirical foundations for the economic process by quantifying what led to Brexit and highlight some potential economic consequences on both parties, thus the processes and issues involved in the Brexit negotiations, and explores the implications of possible outcomes for the UK and the European Union. As the act of Britain exiting the EU is likely to occur in early 2019.

This study is structured as follows: section1: EU Economic performance along with the causes and consequences of the Eurozone debt crisis; section2: Economic links between UK-EU in conjunction with Eurozone debt crisis; Section3: Brexit: Economic consequences and UK-EU future relationship.

1. EU Economic performance and the Eurozone debt crisis

This section summarizes the macroeconomic performance of the European Area since the launch of the common currency project in 1999, Showing the two main indicators, GDP and fiscal indicators (Dabrowski, 2019). Subsequently, the Eurozone debt crisis.

1.1. Fiscal performance and GDP growth

The basic fiscal indicators such as government (GG) net lending/ borrowing (that is, GG balance) and gross debt, both in relation to GDP – for all European Area (EA) countries in the period of EUR functioning (1999-2018) shows that all EA countries except Estonia did not observe the deficit criterion (max. 3% of GDP) for at least a few years, sometimes much longer as in the case of Greece, Portugal, France, Cyprus, Italy or Spain while the UK doing even worse, despite some improvement in current fiscal balances since 2015. In several countries, this is not enough to significantly decrease the debt-to-GDP ratio and create fiscal buffers for the future.

There is still a substantial number of EA countries in which GG gross debt exceeds the Maastricht limit of 60% of GDP. In 2018, seven countries recorded a very high debt level: Greece (188.1% of GDP), Italy (130.3% of GDP), Portugal (120.8% of GDP), Cyprus (112.3% of GDP), Belgium (101.1% of GDP), Spain (97.2% of GDP) and France (96.7%). Among previously highly-indebted countries, only Ireland and Germany managed to substantially reduce their debt levels.

This situation makes the EA vulnerable which led to financial crises before and it might drive to another future shocks, especially in the case of growth deterioration, banking troubles or increase in market interest rates (Dabrowski, 2019, pp. 18-20).

1.2. Causes and consequences of the Eurozone debt crisis

The European sovereign debt crisis crops up at the end of 2009 as an extend of the subprime mortgage crisis in the United States (2007) and follows the global financial and economic crisis (2008) (Anna Ruščáková, 2016).

The crisis affected public finances, the banking sector, and growth, jobs and competitiveness. Economic development came to a halt, businesses closed and tax revenues fell, the funding for unemployment benefits went up and states had to borrow more money to cover rising deficits. Public debt in certain countries rose rapidly, pushing borrowing interest rates up to intolerable levels and bringing some countries to the brink of bankruptcy. In the years preceding the crisis, banks all over Europe had taken on excessive risks. In some countries, banks had been too willing to lend money for the construction of houses, as prices continued to rise. When the housing bubble burst, the prices started to drop, leading to huge losses. Banks became reluctant to lend money.

Governments had to step in and recapitalize banks with public money. Moreover, it became clear that several member states had not pursued sound budgetary policies when the economy was doing well, and had not built the necessary buffers to deal with the crisis. As a result of rapidly deteriorating public finances, weak growth prospects and turmoil in the financial sector, financial markets started to charge higher interest rates on loans to governments. The problems faced by governments in financing themselves in turn negatively affected the banking sector and the economy (Council of the European Union, October 2017, p. 13).

The reasons for the Eurozone debt crisis are varied, with some general causes and some country-specific factors. A number of countries in the eurozone such as Greece in May 2010 and February 2012, Ireland in November 2010, Portugal in May 2011, Spain in July 2012 for its banks and Cyprus in May 2013 have been forced into taking emergency loans from other Eurozone and EU governments and the IMF. These countries' governments asked for these loans when they became unable to fund their budget deficits at sustainable interest rates on the financial markets and faced the prospect of defaulting on their debt. In return for the loans, these countries signed up to implement Economic reforms and public sector austerity intended to reduce their budget deficits and make their Economies more competitive. So, inability to borrow money on the markets to fund deficits was the short-term factor behind the crisis. However, the main reasons behind it are:

a. Causes of the Eurozone debt crisis

When the single currency began, Euro members gave control of monetary policy to the European Central Bank (ECB) which sets interest rates for the whole of the

eurozone. Some large countries, notably Germany, had weak growth and this led to the ECB setting a relatively low interest rate. However, this rate was too low for some booming economies like Ireland and Spain and helped create large housing market bubbles there. Also, by giving up an independent monetary policy and currency, countries with high debt burdens were not able to use certain measures to respond to the crisis that countries outside the euro (like the UK) could use. These include allowing higher inflation (to reduce the debt burden), directly/indirectly depreciating currency (to promote exports) and buying up their own debt to avoid default.

Borrowing costs for all Eurozone governments converged upon the euro's creation, so countries like Greece, that previously had to offer a higher interest rate than, say, Germany to attract investment were now able to borrow more cheaply. Likewise, private sector borrowing costs in these countries also fell toward German levels. This fueled a buildup of government debt in Greece and Portugal, as well as private sector debt in Portugal, Ireland and Spain. The implication was that financial markets perceived every country in the eurozone to have virtually the same risk of defaulting on their loans. Once the global financial crisis began in 2008, countries with high debt burdens and weak economies, such as Greece, soon saw their borrowing costs rise, confidence in their ability to repay this debt was called into question, making financing it more difficult and expensive. Meanwhile, Germany had accumulated large trade surpluses during this time, partly as a result of lowering its labor costs (through restraint in wage growth) (Trabelsi, 2012).

b. Consequences of the Eurozone debt crisis

b.1.The response to the crisis: when the Euro was created, no mechanism was set up to deal with debt crises such as those seen since 2010. As a result, emergency rescue plans had to be drawn up and agreed on the hoof. The long-drawn-out affairs that became synonymous with these bailouts were viewed unfavorably by many. It also created the impression that the larger Eurozone countries that were providing the bulk of the loans were split as to how best to resolve the crisis. This lack of decisive action weakened confidence in international markets, prolonging the crisis.

b.2.Country-specific factors leading up to the debt crisis were different for each country and so was the rectifications (Harari, 2014):

- Greece (loans totalling €240bn), high public sector debt, generous public sector benefits, chronic tax evasion and weak competitiveness; Ireland (loans totalling €85 billion, including €17.5 billion from Irish Treasury and National Pension Reserve Fund), declining competitiveness and property bubble funded by banks which went bust and were taken over and underwritten by the state, causing government debt

crisis; Portugal (loans totalling €78bn) – moderately high private and public sector debt, weak competitiveness and growth; Spain (loans totalling €41bn), an ailing banking sector had lent heavily to construction sector before the housing bubble burst; Cyprus (loans totalling €10bn), collapse of the banking sector (massive relative to size of economy), partly due to links to Greece.

The majority of the loans provided to the countries were funded by other eurozone countries, also with the IMF contributing.

c. Re-emerging sovereign debt sustainability concerns:

-The aggregate euro area headline fiscal deficit declined from 1.6% of GDP in 2016 to 1.0% of GDP in 2017, and is set to drop further to 0.6% of GDP in 2018, while deteriorating slightly in 2019-20. The improvement in 2018 has been chiefly supported by economic growth and the low interest rate. Fiscal efforts continue to fall short of commitments under the Stability and Growth Pact (SGP) in several (in particular highly indebted) euro area countries.

-For highly indebted countries, addressing debt sustainability concerns requires active fiscal consolidation. The euro area aggregate general government debt-to-GDP ratio has been on a downward trajectory since the peak in 2014, reaching 88.9% in 2017. More recently, the stock of debt has continued to increase in several highly indebted countries, despite the downward effect of supportive macro and financial conditions. Hence, failure to rein in fiscal balances and to comply even with minimum SGP requirements would place debt trajectories on a clear upward path in most countries with debt ratios above 90%. The strong reaction in Italian sovereign bond markets in 2018 illustrates how quickly shifts in market sentiment can reignite pressures on more vulnerable sovereigns. Pressure on sovereign financing costs, in combination with a lack of sufficient fiscal consolidation efforts, may put the debt ratio on an unsustainable path in highly indebted countries. Sovereign debt dynamics continue to benefit from the ongoing economic expansion and financing conditions in terms of both pricing and duration. However, public finances remain fragile in a number of euro area countries, exposing them to the risk of a sudden change in market sentiment or deteriorating macroeconomic conditions. Waning fiscal consolidation efforts, particularly in combination with higher long-term interest rates, would fuel public debt sustainability concerns in more vulnerable euro area countries (European Central Bank ECB, November 2018).

2. Economic links between UK-EU in conjunction with Eurozone debt crisis

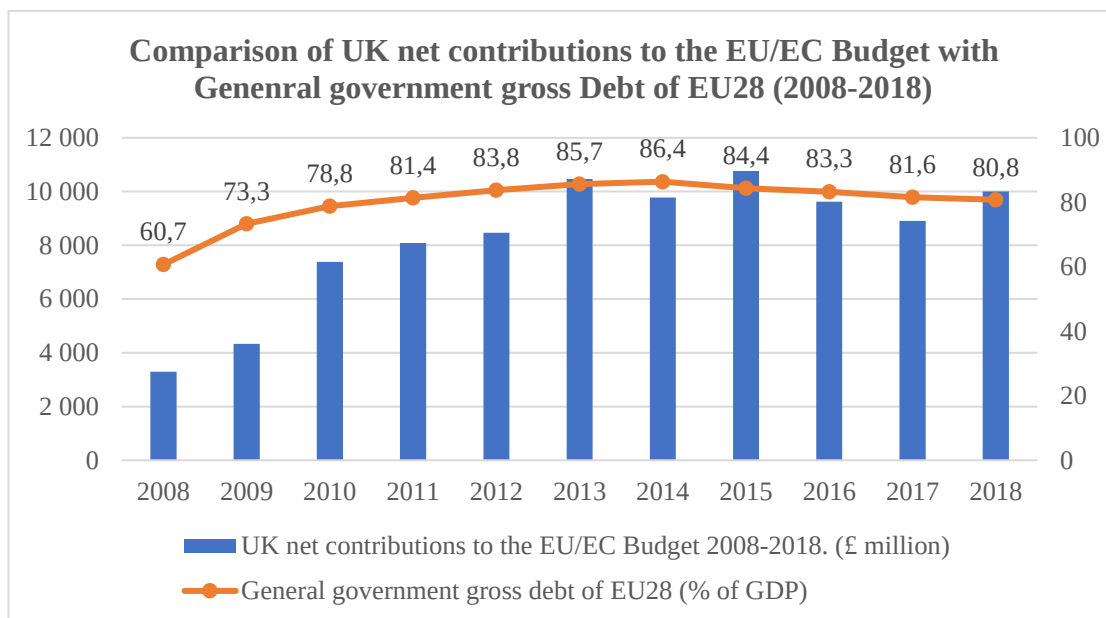
As one of the largest economies in the EU it is no surprise that the UK is one of the countries asked to pay most towards the EU budget, and the cost of this to the British tax-payer is one of the contentious issues around UK membership of the EU (Begg,

2016). UK payments to EU budget increased starting 2009 when the Sovereign debt crisis hit the Eurozone, which required from the European Commission (EC) to make rescue programs along with the ECB who has helped Eurozone countries to issue and refinance debts, therefore to help the damaged economies to pay their debts and boost their economies.

2.1. The linkage between UK contributions to EU budget and the debt crisis

To explain the relation between the timeline of the Eurozone debt crisis and the increase of UK contributions in EU budget, Figure 1 shows a comparison of UK net contributions to the EU/EC budget with General government Gross Debt of EU28 for a decade (2008-2018):

Figure 1: «Comparison of UK net contributions to the EU/EC budget with General government Gross Debt of EU28 (2008-2018) »



Sources: Compiled by authors based on Eurostat

When the Eurozone sovereign debt crisis started to strike many member countries, The EU interference to help funding rescue programs in the benefit of indebted countries. Anyhow, that reflected on the increase of contributions to the EU budget from Germany, France and UK (as one of the biggest contributors). UK government contributed 4.336 billion £ in 2009 when the government Gross Debt of EU28 reached 73.3%, then jumped to almost double by the increase of debt (81.4%) to 8.082 billion £ in 2011, afterwards the contributions get to its highest point in 2013

(10.465 billion £) along with the debts that reached 85.7% continuing about the same level till 2015.

Even though the UK benefit from the EU programs, also gets a rebate on its contributions. The fact that the increase of UK's contributions to EU budget coincided with the debt crisis in the area cannot be ignored, which explains that a part of it goes to fund ECB plans to save the other indebt member countries. Moreover, since the debt crisis didn't directly intertwine the UK, is still committing to EU/ECB financial policies and that was one of the reasons that led the British to make a move to exit the Union and get rid of this burden.

2.2. EU-UK reciprocal Economic relations

To provide a general description of the economic relationship between UK and EU, we mention the following trade statistics:

a. Gross Trade Flows

The EU27 gross trade flows (export/import shares for goods and services sectors) with the UK do not yet reach pre-crisis levels of the year 2007, as exports in 2014 only recovered from a slump in 2013 (-13%). However, the real gross exports have risen by 19%. This slight downward trend in EU27 imports from the UK also reflect the diminishing importance that UK exporters attach to continental European markets. This argument has been part of the campaign for exiting the EU. Between 2000 and 2014, EU gross imports fell by 12% in real terms. However, the net trade volumes, shows that it's clear that EU27 countries accumulated a foreign trade surplus against the UK between 2000 and 2014. In 2000, the German surplus made up the entire surplus of the EU27, then it fell to 41% in 2017 (Gabriel Felbermayr, November 2017).

Taken as a bloc, the EU is the UK's largest trading partner. In 2017 the EU accounted for 44.5% of total UK exports. Therefore, Goods and services imports from the EU were worth £342 billion (55.5% of the total in 2017). However, the UK recorded an overall trade deficit with the EU of -£67 billion; surplus of £28 billion on trade in services was outweighed by a deficit of -£95 billion on trade in goods. In 2017, the UK had a trade deficit with 17 of EU countries, a surplus with 4 (Ireland, Sweden, Luxembourg, Denmark) and was broadly in balance with 5 (Estonia, Slovenia, Malta, Lithuania, Latvia). However, its largest EU trade surplus was with Ireland (£12 billion), while its largest deficit was with Germany (£21 billion). In general, the proportion of service imports being sourced from the EU has fallen since 1999, from a high of 57% in 2003 to 49% in 2017. Overall, the UK has had a trade deficit with the EU in every year since 1999. By contrast, the UK has had a surplus with non-EU countries since 2012 (Ward, 11 January 2019).

b. EU-UK Tariffs:

While the UK is a member of the EU, there are no tariffs on trade with other EU member states. Goods imported into the EU from non-EU countries pay the EU's common external tariff, unless there is a free trade agreement or preferential trade agreement.

The tariff rate differs between different goods. While on average EU tariffs are low, they are high for some products, especially agricultural products. The trade-weighted average EU tariff for non-agricultural products was 2.3% in 2014 and 8.5% for agricultural products (Ward, 11 January 2019, pp. 5-13).

c. Foreign Direct Investment

The Economic interdependencies with regard to foreign direct investment (FDI) between the EU27 and the UK. Foreign trade and FDI can be complements and substitutes. However, from 2008 to 2015 EU27 FDI to the UK has increased without exception with a growth rate of 75% over the period. It reached a record high of 1,635bn Euro in 2015. A sharp increase in FDI positions is particularly striking in the years 2014 and 2015, which alone accounted for more than two-thirds of the total increase. On the other hand, there is no clear trend for UK FDI in the EU. Although FDI rose over the entire period from 539bn Euro to 612bn Euro (14%), it reached the maximum in 2011 (Gabriel Felbermayr, November 2017, p. 5). In 2018, the 28 EU Member States exported a total of €5 474 bn of goods, of which €3 518 bn (or 64%) were destined for another Member State of the EU (intra-EU trade). With more than three-quarters of goods exported to other EU Member States, Slovakia (86% intra-EU in total exports), Czechia and Luxembourg (both 84%), Hungary (82%), Poland (80%), Romania (77%), Slovenia and Portugal (both 76%) recorded the highest shares of intra-EU exports in 2018. At the opposite end, Cyprus (28%) and the United Kingdom (47%) were the only Member States that exported more goods to non-EU countries than within the EU in 2018 (Eurostat, 20 March 2019).

3. Brexit: Economic consequences and UK-EU future relationship

On 23 June 2016, the UK held a referendum on its membership of the EU, with the majority of voters choosing to leave the EU (51.9% of the vote versus 48.1% voting to remain) (Walker, 7 November 2018). Whether or not the UK eventually leaves the EU, the economic fall-out is already considerable, including the fall-out for EU member countries. We will set out how the British economy already being affected by the prospect of this departure and how the future Economic relations with the EU will be.

3.1 The consequences of UK's vote to leave the EU

The UK Government publishes the Great Repeal Bill White Paper in 30 March 2017, later that year First round of UK-EU exit negotiations began and that led the government to publish the first collection of technical notices providing guidance on how to prepare for a no-deal Brexit in 23 August 2018. At the end of 2018 in the last budget when the UK leaves the EU (on the given time), it cost £500m for no-deal Brexit preparations (Walker, 7 November 2018, pp. 7-26).

In this section, we will acknowledge some of the main consequences of UK exit from the EU, along with the most expected withdrawal scenarios and Brexit bill.

a. The Withdrawal Process – Lisbon Treaty Article 50

On 28 February 2018 the European Commission published a 118-page draft Withdrawal Agreement. This agreement is being negotiated under Article 50 of the Treaty on European Union (TEU) and will set out the terms and conditions for the UK's withdrawal from the EU. It will "take account of" the framework for the UK's future relationship with the EU, but will not regulate the long-term future EU – UK economic and trade relationship. This will be negotiated once the UK has left the EU and become a third country, and will be determined by a separate treaty (or treaties).

- The Lisbon Treaty Article 50 both outlines how the withdrawal process will work and, implicitly, why that process is disadvantageous to the leaving country. The UK triggering the Article 50 means that: negotiations would involve the 27 remaining Member States, the Commission and the UK; A withdrawal agreement would need the consent of the European Parliament and unanimous agreement of the Council; The UK would need to negotiate a withdrawal and post-exit arrangement with the EU within two years (till 29 March 2019); After two years the negotiation period can be extended only by unanimous agreement among the 27 Members States - any Member State can veto the extension; The EU treaties continue to apply to the departing Member State until a withdrawal agreement has entered into force or the formal negotiation process ends (European Movement International, 2017).

b. The impact of Brexit on the British Economy

b.1. After UK's decision to leave the EU, markets were caught by surprise. Sterling collapsed, from \$1.50 to \$1.33, within hours after the early results were announced and lost around 10% in trade-weighted terms as of 1 July 2016, also has lost more since. In the long-term, as investment decisions are likely to be postponed, both demand for exports and outbound investment could decline (or increase if there are few economic opportunities in the UK) (Max Mendez-Parra, 2016).

In the absence of a free trade agreement, World Trade Organization rules would require the imposition of ‘Most Favored Nation’ tariffs upon goods, leading to higher prices for consumers and disrupting supply chains. UK exports to the EU would become less competitive, and inward investment could be undermined, damaging the whole economy (European Union Committee, 2018).

b.2. Foreign Direct Investment: An important reason for inward FDI to Britain is unfettered access to the EU Single Market, so reduced access will make the United Kingdom a less attractive destination. However, Brexit would likely lead to a fall in FDI to the UK by over a fifth, such a fall would reduce GDP by about 3.4%.

Financial services constitute about 45% of the stock of FDI, and are particularly vulnerable to Brexit. This is because EU membership allows foreign banks to sell (“passport”) their services anywhere in the European Union. For example, Switzerland has a comprehensive set of free trade deals with the EU in goods but not in services, which is one reason why Swiss banks set up subsidiaries in the City of London (Reenen, 2016, pp. 375-376).

b.3. GDP growth of 2018: UK’s GDP growth for the first quarter posted a 0.1% point upward revision to 0.2%, mainly due to the upward revision of the net trade component, which also led to a further narrowing of the United Kingdom’s trade deficit, but short-term indicators for the export-oriented manufacturing sector signal a less optimistic outlook. This is in line with an environment of heightened uncertainty, particularly regarding the outcome of the negotiations on the country’s withdrawal from membership of the EU in March 2019. Inflation stabilized at 2.4% in May, unchanged from April, as movements in the exchange rate have helped offset recent increases in oil prices (European Central Bank- Eurosystem, 2018). Globally services trade is growing rapidly; UK services trade with non-EU countries grew by 73% between 2007 and 2017 (HM Government, 2018).

c. Brexit scenarios and withdrawal bill

Due to existing uncertainties regarding the potential design of Brexit, it is useful to examine a number of scenarios when quantifying the effects of the UK leaving the EU. We thus approximate the economic cost of Brexit applying scenarios that differ with respect to the assumptions on trade costs between the EU and the UK.

c.1. The three selected scenarios are described in more detail below:

- **World Trade Organization “WTO” scenario (Hard Brexit):** The UK is no longer part of the European Single Market and Customs Union. There will be no new trade integration agreement between the EU27 and the UK, if they do not come to a mutual understanding of potential future cooperation. The EU27 and the UK will then apply “Most favored nation” (MFN) tariffs as currently granted under WTO rules on imports of third countries. Sectoral trade-weighted MFN tariffs granted at the product-level by the EU to third

countries in 2014 are used for simulation in the WTO scenario. In addition, asymmetric NTBs (Non-tariff Barriers) will be reintroduced between the EU27 and the UK according to the sectoral trade costs calculated from the gravity estimations. Moreover, the UK loses all existing tariff and non-tariff preferences that it currently enjoys with third countries with whom the EU has a Free Trade Agreements (FTA) in force (e.g. EU-Korea).

- **Global Britain scenario:** It model the same relationship regarding tariffs and NTBs between EU27 and UK as under the WTO scenario, but now the UK unilaterally eliminates tariffs and NTBs through free trade agreements with the U.S., Canada and Japan. Tariffs are symmetrically phased out and set to zero between the countries. NTBs are reduced as under the EU-Korea FTA.
- **Deep and comprehensive trade agreement (DCFTA) scenario (Soft Brexit):** The UK exits the EU Single Market and Customs Union, but the EU27 and the UK negotiate a deep and comprehensive free trade agreement. The DCFTA comprises not only tariffs but also low behind the border non-tariff trade impediments (such as NTBs on services, investments etc.). The DCFTA replicates the achievements of the EU-Korea agreement of 2011 (European Movement International, 2017).

c.2. Withdrawal bill

The first budget without Britain will be the EU budget for 2019, given that the UK will cease to be an EU member in March 2019. The following types of liabilities can be lined up for the Brexit bill:

- “Reste à liquider” (RAL): This is the sum of outstanding commitments for EU spending agreed to, but that have not yet translated into payments. The RAL amounts to 241bn Euro by the end of 2018.
- Promises made jointly by the member states to fund EU spending of 143bn Euro in 2019 and 2020, mostly in the form of structural and regional policies. This spending is part of the EU budget but it is covered by a special regulation (Regulation No 1303/2013).
- Additional EU spending agreed on as part of the multiannual financial framework 2014-2020 one could argue that the UK hasn't made a legally binding commitment.
- Pensions of EU employees: EU employees receive generous pensions. These pensions are unfunded. Current pension liabilities are estimated to be 63.8bn Euro.
- Additional obligations could follow from contingent liabilities the EU has incurred during UK's EU membership. These include 23.1bn Euro in guarantees and provisions, e.g., granted by the European Investment Bank (EIB) or under the Horizon 2020 initiative; others are loans to various countries including Ireland, Portugal and the Ukraine, totalling 56bn Euro. To the extent that debt has been issued to finance loans in this context, this is a liability of the EU. In addition, there are the contingent liabilities implied by the guarantees.
- Finally, the EU has assets including property, financial assets and the loans mentioned under 5 above. The Brexit bill would be reduced by the share of the UK

in these assets. In addition, the UK share of the spending implied by the RAL, as well as other spending commitments (2 and 3) could be knocked off the Brexit bill (Gabriel Felbermayr, November 2017, p. 18).

3.2 Economic Effects of Brexit on the EU

a. Trade Effects

Higher trade costs, such as NTBs or tariffs, increase the price of UK exports to EU27 states and vice versa. This may cause trade destruction and trade diversion both in private consumer demand and in the sourcing decisions of firms. Simulation results show that Brexit would in fact lead to a considerable decline of goods and services trade between the UK and EU27 countries. Both, price effects (through higher barriers to trade) and income effects (due to falling GDP) are important mechanisms. In the WTO scenario, UK exports to Germany fall by 50%; the counterfactual exercises show a similar drop in exports in the Global Britain scenario.

Even with a deep and comprehensive FTA between the UK and the EU27, UK exports to Germany fall by 24%. Services exports are the most pronounced. We find comparable trade effects in the WTO scenario (FTA scenario) for the other EU27 countries. These range between -53% (-28%) for Lithuania and -22% (-6%) for Luxembourg. German exports to the UK would drop by 33% in the WTO scenario and by 9% under a DCFTA. German wholesale trade involves the largest trade effects in percentage changes; both the WTO and the DCFTA scenario show losses of more than 50% or more than -2bn Euro for German exports to the UK (Reenen, 2016).

b. Financial aftermath

b.1.The annual average exchange rate EUR/GBP (in period 2007- 2017): the euro had appreciated quite strongly against the pound sterling between 2007 and 2009 it subsequently depreciated, particularly in 2012, 2014, 2015 and the first half of 2016, although this pattern was reversed during the second half of the year (following the Brexit vote) as the euro once again appreciated. Over the whole period (2007-2017) the euro appreciated by 21.9 % against the pound sterling (Eurostat, 2018).

b.2.The Euro yield curve between 2007 and 2017 for central government bonds with various years remaining to maturity, Yields were relatively high just before the onset of the financial and economic crisis, in 2007/2008. Regardless of the time to maturity, yields in 2016 were at a historic low, as bonds with less than nine years to maturity had negative yields and bonds with 30 years to maturity offered a yield of just 0.94 %. This situation changed somewhat a year later as bond yields showed signs of an upturn, as a result, bonds with less than seven years to maturity in 2017 had negative yields, while bonds with 30 years to maturity offered a yield of 1.30% (Eurostat, 2019).

b.3. Short-term interest rate/three-month interbank rate (annual average), 2007-2017: These rates peaked in 2007/2008 and subsequently fell at a rapid pace in 2009 (during Eurozone debt crisis) as the effects of the global financial and economic crisis were felt; interbank rates generally continued to fall thereafter, although at a much more moderate pace. For the period 2012-2016, interbank rates for the euro area, the United Kingdom, were consistently found within the range of -1.00 - +1.00 %. However, average short-term interest rates in the euro area turned negative (-0.02 %) in 2015 and this pattern was continued in 2016 and 2017 (impact of Brexit) when the latest annual rate was -0.33 % (Eurostat, 2019, p. 10).

c. Effects on Real GDP per Capita:

The effects of the different Brexit scenarios on real GDP per capita in EU countries in percent in the year 2014. Brexit is definitely more expensive for the UK than for the average EU27 country. In the worst-case scenario (World Trade Organization /WTO), the UK would lose 1.4% of GDP per capita, the EU27 average 0.25%. The Netherlands are the country with the fifth largest loss, which amounts to about a third of that of the UK. Germany loses 0.23% of per capita income, France 0.17% and Spain 0.14%. Benelux and Scandinavia as well as Poland and Hungary are more negatively affected. While South-Eastern European countries experience smaller cuts.

An ambitious free trade agreement would help to reduce the losses from Brexit dramatically for all European parties involved. In the case of a DCFTA, like the EU-Korea FTA, real per capita GDP in the UK decreases by 0.6% and in the EU27 average by 0.11%. Particularly Luxembourg could significantly reduce its losses due to smaller frictions in relevant service sectors. Ireland would still lose more than the UK but far less than under the WTO or Global Britain scenarios. The German loss would fall to 0.1%. The real household income in EU states falls between 0.1% and 1.6%. The latter differs from real GDP, as it does not take tariff income into account. In the hard Brexit scenarios, the relative loss of the UK is at least five times the EU average; in the soft Brexit scenarios it is at least four times as high. As the EU is by far the most important trade partner for the UK, an – even partial – isolation of the economy will have negative effects. Conversely, the details on the design of future trade relations will have a major impact on the UK economy. For all other EU27 members, a soft Brexit (DCFTA) has only minor impacts. None of the involved EU states can benefit from Brexit – neither hard nor soft (Gabriel Felbermayr, November 2017, p. 16).

d. Income Effects and Fiscal Redistribution:

Brexit effects on real gross income in billion Euros and adds potential maximum fiscal costs on The EU27 who might losses amount to 29.6bn Euro in real gross income per year in the WTO scenario. The costs for the UK total 30.2bn Euro. In absolute terms, the UK loses slightly more than the EU27 altogether; fiscal costs are at present hard to quantify as they are subject to negotiations. In 2015, the UK total

net contribution to the EU budget amounts to 14bn Euro. Even if the UK reduces these costs completely, Brexit would not turn out to be a positive case, not even under an ambitious FTA with the EU. On the contrary, precisely in this scenario the UK would have to expect further transfers to Brussels. Fiscal costs for EU27 countries would increase with Brexit. Assuming no adjustment in the European expenditure structure and that the fiscal gap in the EU budget is filled proportional to GNI, Germany would have to contribute an additional 4.6bn Euro and France an additional 2.1bn Euro to the EU budget. Net recipients would receive lower transfers. In Poland this would amount to 0.1% of GDP. The consideration of fiscal costs leaves the UK slightly better but the EU27 worse off. In the unlikely event of no more UK net payments to the EU budget, the EU as a whole report a net loss of 43.5bn Euro in the WTO scenario, 11.3bn Euro of which are allotted to Germany alone. The maximum fiscal costs of Brexit for the EU amount to 32% of maximum total effects (Gabriel Felbermayr, November 2017, p. 29).

3.3 Options for United Kingdom–European Union Relations after Brexit

In broad terms, there are three options. First, the United Kingdom could remain part of the European Union's Single Market by joining Norway, Iceland, and Liechtenstein in what is called the European Economic Area (EEA). Second, the UK and EU could sign a free trade agreement to govern their trade and economic relations. Third, if no alternative agreement is reached, the UK and EU would trade under the most-favored nation terms available to all World Trade Organization members.

The impact for Britain of leaving the Single Market on trade barriers would depend upon what, if any, new deal the UK and the EU negotiated. Absent a new deal, Britain would trade with the EU under World Trade Organization terms, as the US and China currently do. Goods trade would be subject to most-favored nation tariffs and both border and behind-the border nontariff barriers would increase. Multilateral trade liberalization under the World Trade Organization has made substantial progress in reducing import tariffs on nonagricultural goods (Sampson, 2017).

a. The future UK-EU relationship

Both sides have acknowledged the desirability of establishing a strong UK-EU relationship, and have also identified benefits that they would like to achieve by means of this new future partnership, though without so far agreeing to any great extent on the mechanisms for delivering these benefits. Table 1 compares the benefits that the UK Government, the European Council and the European Parliament have identified (The House of Lords and European Union Committee, 2018):

Table 1: « Comparison of the UK Government, European Council and European Parliament's positions on future UK-EU Economic relations (June 2018) »

Issue	UK Government position	European Council position	European Parliament position
Economic relations			
Future Economic Relationship	Economic partnership, covering more sectors and co-operating more fully than any FTA.	A balanced, ambitious and wide-ranging FTA. This cannot offer the same benefits as EU Membership	UK membership of the internal market and the customs union is the best option, but current UK position is only compatible with a trade agreement.
Trade in goods			
Trade in goods	Zero tariffs or quotas, and one set of regulatory approvals (through associate membership of some regulatory agencies).	FTA should cover all sectors and seek to maintain zero tariffs and no quotas, with appropriate rules of origin.	UK position is only compatible with a trade Agreement.
Customs	Customs agreement through either a UK-EU customs partnership, or a highly streamlined customs arrangement.	Appropriate customs cooperation, preserving the regulatory and jurisdictional autonomy of the parties and integrity of the EU customs union.	The UK's position will lead to customs checks and verification, even if tariff barriers can be avoided.
Fisheries	The UK will leave the CFP, but will work with the EU to manage shared stocks and to agree reciprocal access, while ensuring a fairer allocation of fish to the UK fishing industry. Maintenance of open markets for each other's produce.	Existing reciprocal access to fishing waters and resources should be maintained.	A 'novel bilateral partnership' covering access to waters and resources and sustainable management of shared stocks. Access to the EU domestic market must be conditional on access for EU vessels to UK fishing grounds, and cooperation in management of shared stocks.
Trade in services			
Trade in services	New barriers should only be introduced where absolutely necessary.	FTA to cover trade in services, to	Under a FTA market access for services is

		the extent consistent with the UK becoming a third country	limited and subject to exclusions, reservations and exceptions.
Cross-border Service provision	Enable UK firms to set up in the EU and vice versa, and agree an appropriate labor mobility framework.	Allow market access to provide services under host state rules, consistent with the UK becoming a third country	Reciprocal market access in full compliance with WTO rules and with EU rules on equal treatment.
Financial services	Include financial services in a FTA, based on maintenance of the same regulatory outcomes over time, alongside an enforcement mechanism.	Safeguard financial stability in the EU and respect its regulatory and supervisory regime and standards.	UK will lose passporting rights for financial services. Prudential carve-out and limitations in the cross-border provisions of financial services are normal in FTAs.
Corporate taxation	No specific reference.	No specific reference.	The UK (and its dependent territories) should adhere to EU laws on taxation and anti-money laundering.
Energy	Protect the single electricity market in Ireland/ Northern Ireland; explore UK participation in EU internal energy market (IEM); close association with Euratom.	No specific reference.	Possible third-country arrangement, respecting the integrity of the IEM and contributing to energy security. UK to comply with nuclear safety standards.
Transport	Continuity of maritime and rail services, and mutual access for road hauliers.	Agreements on transport, ensuring a level playing field.	Market access conditional on regulatory convergence and alignment. Possible cooperation on transport projects.
Digital	The UK will not be part of the Digital Single Market but will seek domestic flexibility to respond to new developments.	No specific reference.	No specific reference.

Key: **Green**=broad agreement both on the desired outcome and the means of achieving it; **Yellow**=agreement on the outcome but disagreement on the means; **Red**=clear disagreements have emerged, either on outcomes or means; White=insufficient evidence to assess the prospects for agreement.

Source: UK-EU relations after Brexit, **The House of Lords and European Union Committee**, 17th Report of Session 2017–19.

In the timeline of writing this article, the period provided for the UK to negotiate is extended to 12 April 2019. A “no-deal” scenario on that date is now a likely scenario. The benefits of the Withdrawal Agreement, including a transition period, will in no circumstances be replicated in a “no-deal” (hard Brexit) scenario (European Commission, 29 March 2019).

Conclusions and recommendations

Firstly, sovereign debt restructuring is not a universal solution for over indebtedness in the EU. Debt restructuring does not happen at no cost: it may lead to market exclusion and exert pressure on the domestic economy, particularly through the banking system. In the highly interconnected banking system in the EU, triggering CDS repayments could lead to severe tensions, with non-linear or threshold effects in financial markets, resulting in widespread market instability. At the same time, sovereign debt restructuring has reputation implications which spread easily between countries (As UK case who wants to leave the EU membership). Given the self-fulfilling nature of sovereign debt crises, speculation about debt restructuring makes it inevitable. This reputation cost affects the sovereign debt as a whole asset class and has dire consequences for European investment attractiveness, desperately needed in the EU given the weak economic outlook.

Given that Brexit will lead to significant financial pressure on the EU budget, this may be the right moment to think about a more extensive reform of the EU's finances in order to improve its effectiveness on the expenditure side as well transparency and perceived fairness on the revenue side;

Secondly, remaining a member of the EU is the most advantageous option for the UK. The single market grants it access to 500 million customers across the EU and it can influence the single market rulemaking. In turn, this lowers prices for costumers and provides them with more options. Ultimately, this relationship makes the UK economy more prosperous;

There is general acceptance that the EU's Single Market in services lags behind that in goods: barriers to free movement of services remain in many sectors. Nevertheless, the UK's export of services, including financial services, to the EU, not only generates employment and revenue domestically, but by facilitating access to capital, drives investment across the EU. A relationship that preserves the freest possible trade in services, financial and non-financial, would deliver substantial benefits to both sides; While imports of the EU27 from the UK increased by 64.7% (88.1%) for goods (services), UK imports from other EU27 states were pushed only by 18.2% (59.7%) for goods (services). This illustrates that reductions in tariffs and the harmonization of standards by the EU have had a clear positive impact on trade relations. These benefits from European integration – on both the UK and the EU side – are now at risk due to Brexit.

Finally, Given the closeness of the referendum result, the Government must articulate an inclusive vision for future UK-EU relations, commanding broad support, in order to achieve an acceptable and durable outcome. The analysis of the one off "withdrawal bill" and of the impact of Brexit on the future EU27 budget indicates that the outcome will essentially be a result of negotiations, which reflect not just budgetary issues but wider aspects of Brexit including future trade relations. The response of the EU to spending cuts caused by Brexit as opposed to higher contributions from remaining members is an economic question to be solved. Nevertheless, we suggest that it would be a good opportunity to achieve a reform of EU spending towards a greater weight on policies where EU involvement generates added value.

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