

DOI: 10.52547/jep.2.2.201

A Review Study of the Effects of Coronavirus and Brexit on the UK Economy

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ARTICLE INFO

Article history:

Date of submission: 05-01-2021

Date of acceptance: 09-06-2021

JEL Classification:

F00

F60

F63

Keywords:

COVID-19

Brexit

UK Economy

Global Economy

ABSTRACT

This paper summarizes what is known about the long-term economic impact of Brexit and answer questions that may cross the readers' minds. This article consists of two main parts: the first part is about investigating the effect of COVID19 on the UK economy and novel coronavirus. The second part is about investigating the consequences of BREXIT on the UK economy. The researchers of the present study surveyed the effect of COVID19 and Brexit on the UK economy in different dimensions of the economy such as GDP, employment, services, and industries, and those of social and personal lifestyles such as business activities, education, and transportation. The present study aimed to investigate the consequence of COVID19 and Brexit co-occurrence on the UK economy. This study is performed by analyzing the latest economy affected by the COVID-19 pandemic throughout 2020 and Brexit. The results show that improving economic conditions takes a long time, and Brexit will dramatically impact the future of the UK and some other countries.

1. Introduction

*I*n recent years, several crises have affected countries with unpleasant consequences [Kraus, S. et al. (2020)]. Researchers and experts believe that the last disaster of the century, COVID19, has had the most significant impact on the economy compared to other crises, such as the economic recession that started in 2008. Further, they believe that its long-term economic damage will be more significant, and its economic recovery will slow down [Fernandes, N. (2020)]. Estimates indicate the virus could decrease global economic growth to an annualized rate of -4.5% to -6.0% in 2020, with a partial recovery of a

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rate of 2.5% to 5.2% in 2021 [McKibbin, W. J., & Fernando, R. (2020)]. The economic shutdown from the pandemic could risk continued worker dislocations resulting from lingering high levels of unemployment since the Great Depression of the 1930s, massive debt in developing economies, increasing joblessness, and human costs affecting global economic growth and poverty [Strauss, S. (2020)].

Most of the crises have some typical qualifications:

- They are beyond common expectations that are so rare that even the possibility of occurrence is unknown.
- They have a calamitous impact,
- They are explained in hindsight as if predictable.

Today, economic shocks or macroeconomic shocks are common because of globalization [Rodrik, D. (2018)]. They have different qualifications such as unexpected impact large scale, special term-structure, etc. which we have explained in detail in the following:

- The singular or short- term event

Shocks are short-term trends with unaccountable tracking gains or costs because they are unstable events [Bazzi, S., & Blattman, C. (2014)]. Long-term trends cannot be considered as shocks because the economy has time to adjust them.

- Large scale

It means that it can affect the entire economy. Some shocks are financial because they affect only a specific group of people [Heltberg, R. et al. (2012)].

- Unexpected

It is not possible to plan to predict economic shocks [Guerrieri, V. et al. (, 2020)]. As a result, they can lead to unexpected economic changes.

- Exogenous

External factors cause economic shocks. By this logic, the financial crisis in 2008 cannot be considered an economic shock because it arose from a series of endogenous financial decisions.

Some shocks are caused by human intervention and decisions, such as the 2008 financial crisis. On the other hand, some shocks result from natural events, such as climate change.

With massive coverage of the pandemic, international economies are drastically affected [Lenzen, M., et al., (2020)].

One of these pandemic-stricken countries is the UK. The United Kingdom is one of the countries where tourism accounts for a large part of

GDP [Williams, C. C. (2020)]. It has a global stock market that will get into trouble. It is a country with global trading, and this commercial relationship will experience a significant change. During the crises, the UK GDP was 25% lower in April than in February [Haldane, A. G. (2020)]. So, it is expected to decrease GDP in the final quarter of 2020.

The rest of the paper is organized as follows:

The first part analyses the dataset for investigating the effects of Coronavirus on the UK economic development, such as analysis of GDP, business activities, production, etc.

The second section is devoted to the effects of Brexit on the UK economy, such as traveling, residency rights, and more. Then, we have compared the consequences of both crises. Finally, the last part addresses conclusions and remarks.

2. Impacts of COVID19 on UK economy (Section A)

Coronavirus has affected various industries and sections in the UK. First of all, let us look at some main facts and points in tabular form according to the latest statistics (i.e., Nov,2020):

Table 1. Main facts about UK economy during Coronavirus

No	Subjects	Explanations
1	GDP	The monthly gross domestic product (GDP) rose by 1.1% during September 2020, but it reached 8.2% below February 2020 levels. Quarter 3 (July to Sept) 2020 saw a 15.5% growth in GDP following a 19.8% fall in Quarter 2 (Apr to June) 2020; Quarter 3 GDP was 9.7% which was lower than that in Quarter 4 (Oct to Dec) 2019.
2	Services	Professional, educational and medical services had a monthly growth, while accommodation and food & beverage had declined.
3	Industries	Of the 51 service industries, 10 had September 2020 output levels less than 80% of that recorded in February 2020.
4	Manufacturing	The manufacturing section had a widespread growth, but was largely counterbalanced by a fall in the pharmaceutical industry; aircraft production and motor vehicle manufacturing saw separate September 2020 output levels that were 26.2% and 21.1% below those of February 2020.

2-1. Analysis of GDP, recovery rate, and services

The monthly rise reflects growth across construction, manufacturing, and services. The recovery to February levels has slowed down over recent months. Be mindful of a break in the side axis when interpreting this chart.

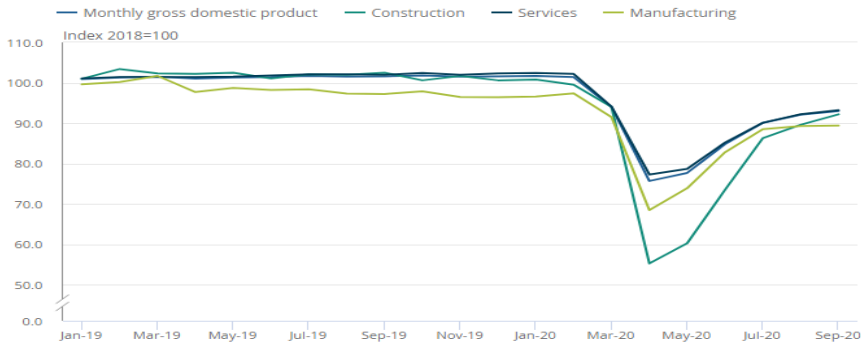


Fig 1. Monthly gross domestic product and components index, seasonally adjusted, UK, January 2019 to September 2020

Source: Office for National Statistics – Monthly GDP

The implications of this diagram are as follows:

- Service industries remained 8.8% below the February 2020 levels, growing by 1.0% in the latest month.
- Production industries remained 5.6% below their February 2020 level, growing by 0.5% in the latest month.
- Manufacturing has declined by 8.1% since February 2020, growing by 0.2% during September 2020.
- The construction industry remained 7.3% below the February 2020 level, growing by 2.9% in the latest month.

Negative GDP or negative growth can lead to recession with disruptive economic effects, including layoffs, unemployment, declining business revenues, and consumer spending [Guerrieri, V. et al. (2020)]. In contrast, positive GDP or economic growth will increase employments, incomes, outputs, and consumption. Government can consider or modify its policies in different situations such as negative or positive economic growth.

How does the government help businesses during the Covid19 outbreak? We have explained it briefly in Table 2:

Table 2. Government support schemes for businesses during COVID-19

No	Business support	Explanations
1	Coronavirus Job Retention Scheme	The government pays people wages in the form of JRS. The job retention scheme (JRS) aims to protect and maintain the structure of the economy. This policy covers 80% of the wages of people whose wages are less than £2,500 a month.
2	Self-Employed Income Support Scheme (SEISS)	The government gives grants based on return; the lower the return, the more the credit. (e.g., those who have seen their profits dip by less than 30% will still be entitled to a 30% grant.
3	Coronavirus Business Interruption Loan Scheme (CBILS)	CBILS provides loans up to £5m. They are interest-free and available in different forms such as asset and invoice finance. Banks will not be permitted to request personal guarantees for loans under £250,000; instead, the government provides security of 80% to the bank which may suffer losses.
4	Bounce Back Loans	This loan is for SMEs, and companies can apply about 25% of their turnovers. It is interest-free and the government will back the entire loan.
5	The Future Fund	This is for innovative companies. The Future Fund will provide convertible loans from £125,000 up to £5m. It is used to salaries or dividends, nor can it be used to repay existing borrowings to shareholders or related parties. The loan will mature after 36 months, at which point it will convert into shares. An interest rate of 8% will be levied on the loan, although this will not need to be paid back every month.
6	HMRC Time to Pay (TTP) Scheme Extended	This helps cash flow into the supply chain and allows companies operating by the payment of various taxes and fulfilment their obligations.
7	VAT deferred	Companies can defer their taxes due to certain conditions.
8	Additional help for the self-employed and sole traders	This is for employers who have a minimum income floor to access benefits such as universal credit. This will be helpful to those who do not qualify for the SEISS.
9	Business rates relief	Paying attention to businesses in the retail, hospitality and leisure sectors, with a measurable value of less than £51,000, is important.

Source: <https://www.realbusinessrescue.co.uk>

2-2. Business activities

In this section, we have investigated the effects of Coronavirus on different business activities such as industries, turnover, etc.

- The percentage of businesses currently trading has fallen to the levels seen in Wave 11 of the Business Impact of Coronavirus Survey (BICS) (27 July to 9 August 2020), at 82%.
- Half of the businesses experienced a decrease in turnover, a sharp increase in Wave 17 compared with Wave 16.
- The accommodation and foodservice industry had the highest percentage of businesses with no or low confidence that their businesses would survive the next three months, at 34%.
- The arts, entertainment, and recreation industry had the highest proportion of its workforce on partial or complete furlough leave, at 34%, compared with 9% across all industries.
- 10% of businesses currently trading identified their business as operating in the hospitality sector. Of these, 37% had changed their operating hours due to complete closure, and 32% because of the 10 pm curfew.

2-3. Services industries

The output of service industries grew by 1.0% during September 2020 and was 8.8% below the February 2020 level. Of the 14 sections, 10 saw growth (Figure 2), led by professional services, education, health, transport, and storage. However, accommodation and food services and information and communication saw decline while two sections, including wholesale and retail trade and motor trades, were flat.

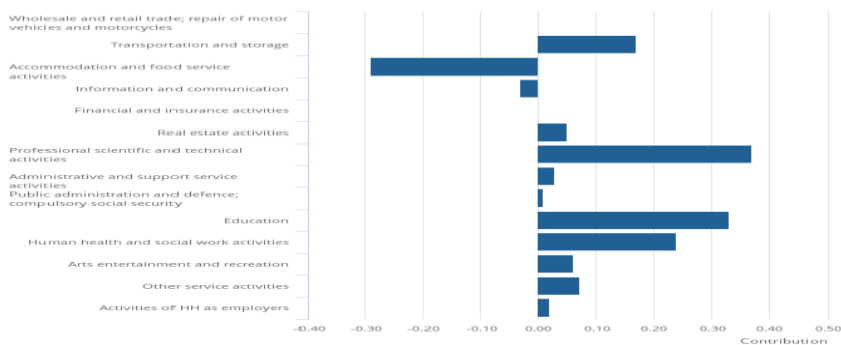


Fig 2. Services sectors, contribution to growth, seasonally adjusted, UK, September 2020

Source: Office for National Statistics – Index of Services)

Only 6 of the 14 sections exceeded 90% of their February 2020 output level in September 2020. Of these, only two have surpassed their February level: wholesale and retail, motor trades, and public administration.

2-4. Human health and social work activities

A 4.6% growth in human health was the main driver during September 2020 as patient services continued to see an increase in accident and emergency admissions as usual. The rate of improvement slowed down by 7.2% in July 2020 and 6.5% in August 2020.

The prevalence of the disease and restrictions can be reduced by vaccinating more people, leading to economic growth.

2-5. Production industries

Production output during September 2020 continued to be affected by the coronavirus (COVID-19) pandemic, and it was 5.6% below the level of February 2020, the entire last month of "normal" operating conditions. Production output increased during September 2020 by 0.5%, driven by positive contributions from all four subsectors (Figure 3).

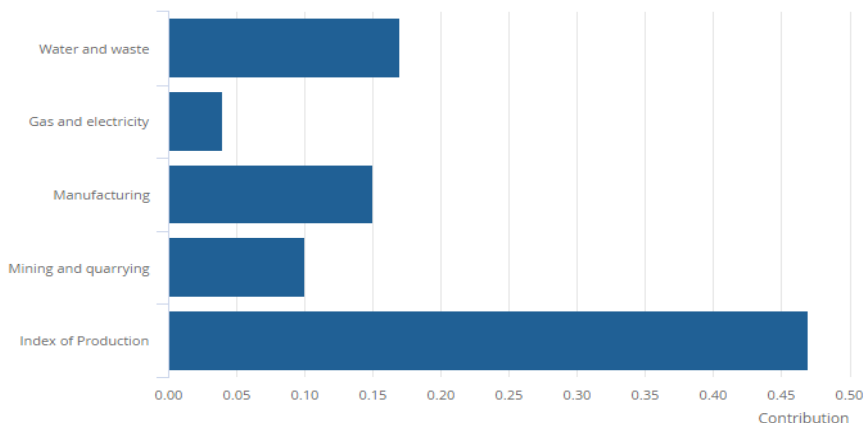


Fig 3. Total production and main sectors, contribution to Index of Production, seasonally adjusted, UK, September 2020

Source: Office for National Statistics – Index of Production

The substantial negative contribution from pharmaceuticals partially offsets overall strength, and without this impact, growth would have been 1.3%. Despite being the fifth consecutive monthly growth since April 2020, manufacturing output was still 8.1% below February 2020 level.

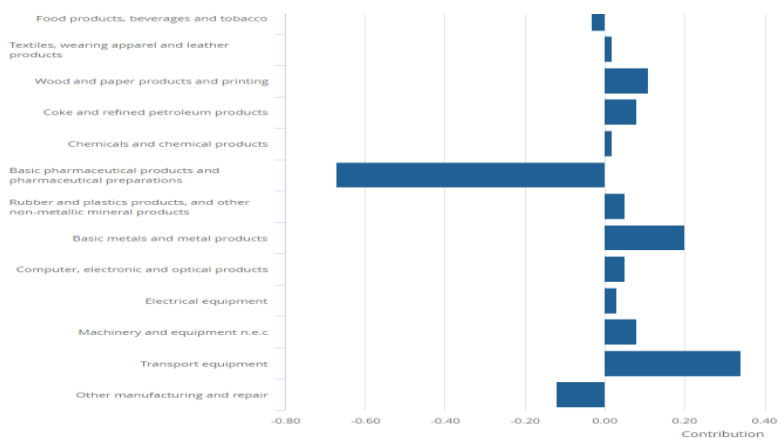


Fig 4. Manufacturing subsectors, contributions to growth, UK, seasonally adjusted, September 2020

Source: Office for National Statistics – Index of Production

Given the continued widespread impact of the pandemic across production and manufacturing, we have highlighted the most interesting anecdotal evidence, both positive and negative, on subsector- and industry-level growth.

There are some key findings of manufacturing in the UK:

- 44% of manufacturers currently have no staff furloughed
- 52% have already made redundancies
- Only 6.5% are still planning further redundancies in the next six months
- 1/2 believe they will achieve total operating levels by the end of 2021
- More than 60% believe the UK will return to normal in less than 12 months
- 2/3 have allowed staff to work more flexibly due to school closure.

Every economy is based on production. If faced with a problem, it can cause harmful effects such as increased costs, reduced employment, reduced economic growth, and ultimately reduced the level of welfare of the people.

2-6. Food products

The end of the Eat Out to Help Out Scheme (EOTHO) during August may have led to a fall in demand during September for those manufacturers in the hospitality sector. In contrast, manufacturers with the food stores sector may have benefitted from a 1.4% growth of sales in food stores during September 2020, as reported by our latest Retail Sales Index release. It may result from the government restrictions on other services such as bars and restaurants at the end of September, which may have encouraged spending in food stores.

demand for some seasonal products such as ice cream, BBQ products, and others have been impacted by social distancing restrictions on large gatherings, live events, and a general downturn in demand in some tourist areas during the summer months.

Agricultural food producers and the wider supply chain may have incurred significant losses caused by COVID-19. It may be influenced by a range of factors, including the proximity of workers for prolonged periods, the need to speak loudly to communicate over the noise of the machines, or the shared welfare spaces external to the factory setting [Source: <https://post.parliament.uk>].

2-7. Basic pharmaceutical products

UK supply chains for medicines have thus far proved to be resilient, partly due to actions taken by the UK Government. However, supply chains can only be stretched so far, as indicated by the fact that buffer stock of medicines is not intended to last more than around six months. The government must work with the pharmaceutical industry to ensure that buffer stock is being replenished to help cope with any further wave of the COVID-19 pandemic [Source: <https://publications.parliament.uk>].

Finally, for summarizing and covering more latest and other issues, the below table is presented [Lea, R. (2020)]:

Table 3. Summary of information

Subject	Explanations
Roads and traffic camera data	According to reports from the Department for Transport (DfT), the volume of all motor vehicle traffic decreased by 8 percentage points on Monday in December 2020 (December 21, 2020) compared with Monday of the previous week.
Football	Footfall across all retail destinations saw a significant drop compared with the previous day (a decrease of 17 percentage points in retail parks and 13 percentage points in both shopping centers and high streets).
Online price change in the food and drink basket	Overall prices of items in the food and drink basket remained unchanged for the fourth consecutive week at 99% of levels seen in the week ending June 7, 2020. Vegetables were the most prominent negative contributor as retailers offered discounts on Christmas. Meat; Milk, cheese, and eggs; Oils and fats provided the most extensive upward contributions.
Online job adverts	The volume of online job adverts increased by 9 percentage points from the previous week to 83% of levels compared with the same time last year. Job adverts increased across all categories and regions compared with the previous week.
Shopping	<ul style="list-style-type: none"> • <i>Adult commuters who</i> left home in the last seven days, the proportion that shopped for food and medicine remained unchanged at 77%. The corresponding figure for those who shopped for things other than food and medicine remained broadly unchanged at 23%. There was no change compared with the previous week in the percentage of adults using a face covering at 97%.

Nevertheless, there is still an important question: whether the coronavirus is a natural disaster or human-manufactured. To answer this question, we should define disaster:

A disaster has some characteristics: [Source: <http://www.nzdl.org>]

1. Occurs suddenly and unexpectedly
2. Causes severe disturbances to people or objects affected by it

3. Resulting in the loss of life and harmful effects on the health of the population
4. Damages the environment
5. It disrupts the typical pattern of life

Concerning the above qualifications, it is clear that Covid19 is a disaster. Is it a natural or manufactured disaster?

"It cannot be seriously disputed that the COVID-19 pandemic is a natural disaster" and within the scope of a force majeure provision permitting termination of a contract for postponements as a result of natural disaster."

The Pennsylvania court concluded that "the COVID-19 pandemic is unquestionably a catastrophe that results in hardship, suffering or possible loss of life, and therefore it was a "natural disaster" for purposes of the Emergency Code [Source: <https://www.jdsupra.com>].

3. Impacts of Brexit on the UK economy (Part 2)

With COVID and the lockdown, within a year and a half or two years, you might get back to roughly the same levels of employment and growth as you were at pre-lockdown. There are many ifs there, but the difference is that the Brexit impact will keep on going [Hunt, A., & Wheeler, B. (2017)]. The shock from Brexit will affect different sectors from the COVID shock, meaning that Brexit is likely to cause additional economic recession even as the economy recovers from the virus-driven downturn. We expect GDP growth in 2021 to be 2.1% lower than in the UK's event remains in the EU Single Market and Customs Union [Hantzsche, A., & Young, G. (2019)]. In a typical year, this would be enough to push the economy into recession. Some of this growth is likely to be made up in 2022. We expect substantial restructuring of the UK economy in the years ahead as it responds to the new shape of demand from UK consumers in the wake of COVID-19 and the new shape of trading relationships in the wake of Brexit [Cohn, T. H., & Hira, A. (2020)]. Such restructuring implies a more protracted economic recovery and a substantial loss of economic capacity as some of the expertise and capital specific to shrinking sectors becomes surplus to requirements.

3-1. End of free movement

Rules that will cease to apply to the UK since January 2021 include those on freedom of movement (a conditional, not absolute right of EU citizens to move to other EU countries to live and work). EU citizens will no longer have the right to move to the UK to work and settle, and vice versa.

A government policy document in February 2020 said one of the aims was to end "a reliance on cheap labour from Europe. "

Meanwhile, the ability of British citizens settled in one EU country to move freely to other nations within the bloc after Brexit — a right they have enjoyed up to now — was not covered in the divorce deal. As things stand, this right will end in 2021.

3-2. Residency rights

EU citizens already resident in the UK by the end of 2020 — and Britons living on the continent — have the right to remain and retain existing rights in employment and social security. This comes under the binding terms of the Brexit divorce deal. However, residence permits will be needed in the future. There have been many complaints about how the new arrangements are working out in practice for EU nationals in the UK, especially given the British government's absence of any physical residency document.

3-3. Health insurance cards

Until now, the EU's European Health Insurance Card (EHIC) scheme has enabled UK and EU citizens to access state-provided healthcare while traveling abroad. This covers pre-existing conditions as well as childbirth and pregnancy issues. It does not guarantee free treatment, however, nor is it tantamount to travel insurance. The post-Brexit deal paves the way for UK and EU visitors to each other's territories to receive healthcare in principle, subject to conditions. UK government advises that most Britons traveling to EU countries will need to take out travel insurance with medical cover — warning they may not get free treatment otherwise.

The British government has plans to replace the EHIC card with a new UK Global Health Insurance Card (GHIC) and promises more details in the New Year.

3-4. Legal cases

The UK wants to join the Lugano Convention, which contains similar rules to the EU's and ensures cross-border enforcement in civil and commercial disputes. The EU has not provided its consent to UK membership of the convention. The UK can rely on The Hague Convention — but this only applies to contracts that specify a choice of jurisdiction.

4. Opportunities from Brexit

A No-deal Brexit would cause short-term disruption, but in the long-term, would lead to a more efficient economy with resources and jobs being reallocated into areas where we have a competitive advantage. For example, Minford argues that the car industry will be run down (800,000 jobs related to the industry). Nevertheless, he argues that this will be like running down the coal industry and steel industry – new jobs will be created in the long term.

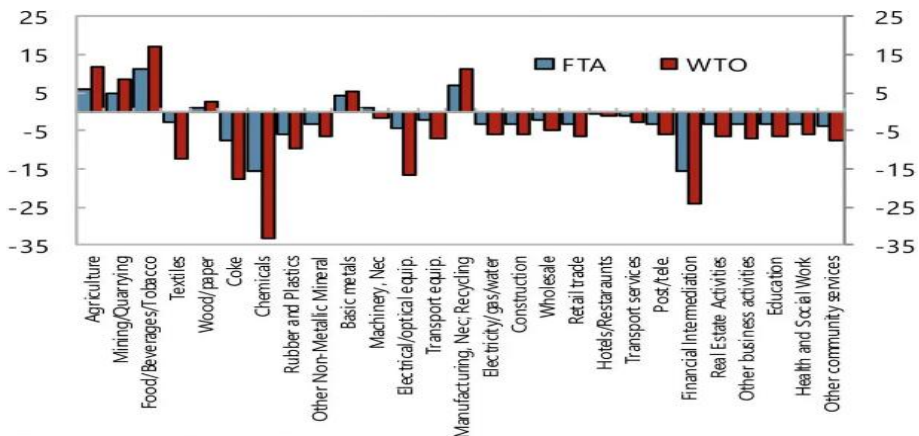


Fig 5. Estimated sectoral impacts (percent deviation from no Brexit scenario)
Source: IMF staff calculations

Different forecasts for the UK economy under No-deal terms is as follows:

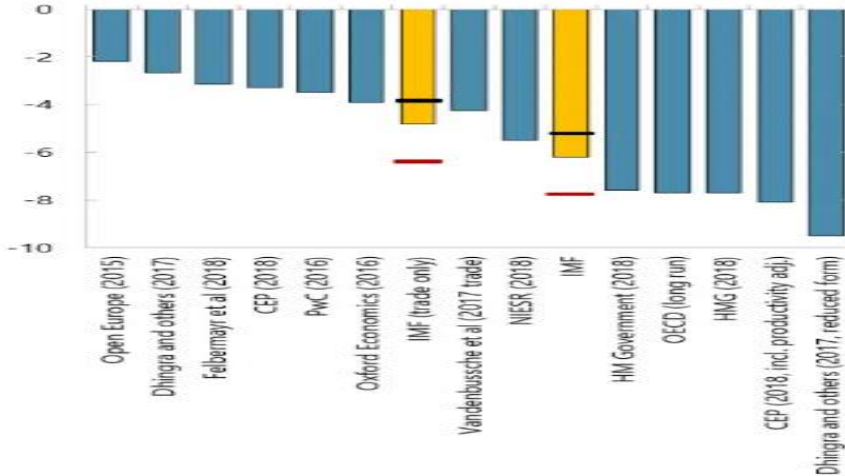


Fig 6. Effect on GDP (percent deviation from no Brexit scenario)

Source: IMF staff calculations

(in percent)

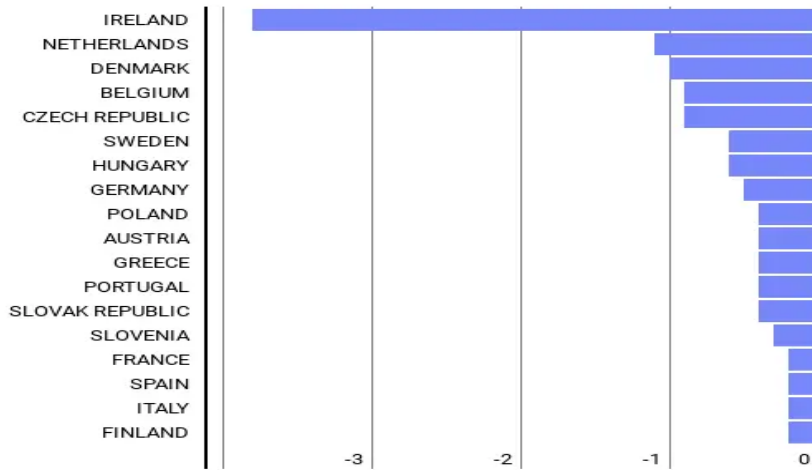


Fig 7. Different impacts on different countries (percent deviation from no Brexit scenario)

Source: IMF staff calculations

4-1. UK GDP would hit hard while effects on EU27 are modest

While the weaker pound sterling would mitigate some of the damage from new trade barriers, it would feed into higher domestic price pressures as the price of imports increases. Inflationary pressures would also be compounded due to tariffs on imports from the EU and other countries with whom the EU has FTAs. As a result, inflation would likely surge from 2.4% to just over 4% in mid-2019. While wage growth has been accelerating, it would not keep up with this pace – especially considering the negative impact of no-deal on the labour market – severely squeezing household purchasing power.

The Euro would also fall victim to some depreciation. It has been depreciating lately against the dollar due to increasing political risks in Italy, France, and the Brexit negotiations. This market pressure would continue as Eurozone countries would face negative economic consequences, albeit to a lesser extent. Furthermore, the US dollar would continue appreciating as a haven asset in a time of uncertainty.

This would translate to a relatively weaker euro, too: about 4% lower against the dollar in 2019 compared to 2018.

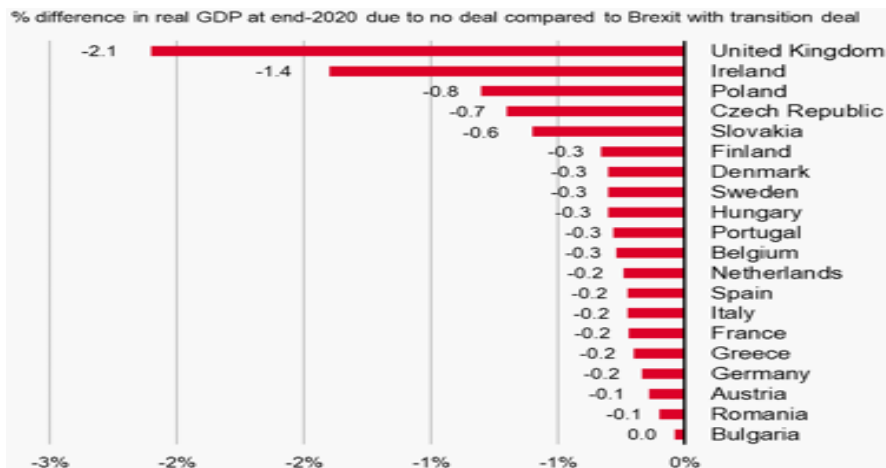


Fig 8. Impact of no-deal Brexit in UK and EU27

Source: Oxford economics, Atradius Economic Research

Overall, the impact on GDP in the UK is significantly negative, but it does not spell disaster. By the end-2020, UK GDP could be over 2% lower than forecast to be under a smooth transition. Higher inflation would strain private consumption, the most vital component of UK GDP growth. Business investment in the UK is expected to be nearly 7% lower by the end-2020 than the baseline due to higher uncertainty, lower demand, and some relocation to the continent. The immediate shock would be negative on demand and could motivate the BoE to cut rates back to 0.25% to support demand and overlook the temporary sterling-driven shock to inflation. However, higher inflation may also cause the BoE to increase rates more rapidly.

For the EU27, those countries with the highest trade exposure to the UK are most vulnerable to adverse impacts, but since these countries have a relatively lower concentration of exports to the UK than vice versa, the impact is much smaller. The impact on the GDP of highly exposed countries like the Netherlands and Belgium is modest: the weaker Euro would boost competitiveness for exports elsewhere. On the other hand, Ireland is the most vulnerable with no deal, causing Irish GDP to be 1.4% lower by the end-2020 than a smooth transition.

Furthermore, Central & Eastern Europe and the Nordics stand out with higher estimated GDP effects. As non-Eurozone economies, they are not expected to see similar depreciation to offset the negative trade impact – hence the relatively more enormous impact on trade-dependent Central & Eastern Europe and the Nordics.

4-2. A comparison between Covid19 and Brexit Consequences

There is an obvious flaw in advocating Brexit because it is less costly than the worst pandemic the world has faced in a hundred years. Covid-19 sharply reduced output in the first half of 2020. However, the economy is expected to recover quickly over the next eighteen months, and the pandemic is likely to have few, if any, and long-term effects on GDP.

Figure 9 is calculated by comparing the Bank of England's quarterly GDP projections in the January 2020 Monetary Policy Report with the same projections from the August report.

The projections only cover three years, so it is also assumed that the 1.7% decline in the fourth quarter of 2022 gives the permanent output loss due to Covid-19.

When measured in terms of their impact on the present value of UK GDP, the Brexit shock is predicted to be two to three times greater than the impact of Covid-19.

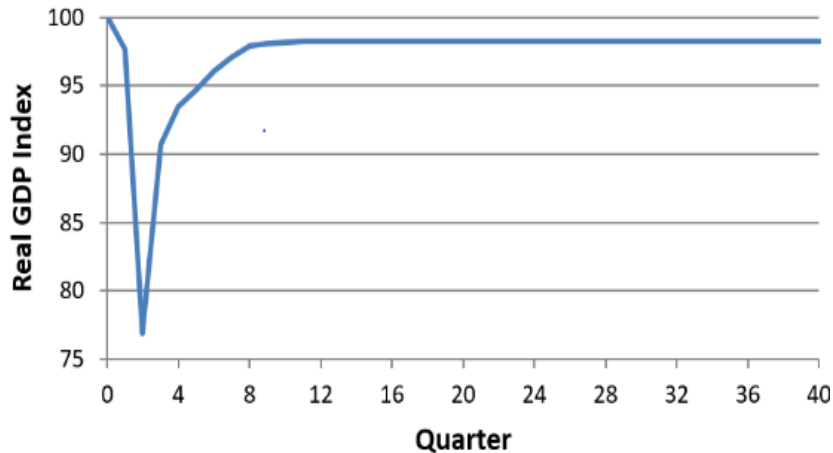


Fig 9. Forecast Covid19 shock to UK GDP

Source: comparing the Bank of England's quarterly GDP projections in the January 2020 Monetary Policy Report with the same projections from the August report

In contrast, the effects of Brexit on GDP are expected to emerge slowly but to be permanent. The government's analysis forecasts that a no-deal Brexit would reduce UK GDP by 7.6% after 15 years, while reaching a free trade agreement (FTA) with the EU would lead to a 4.9% decline. Let us make the optimistic assumption that short-term disruption is minimal and the decline in output occurs gradually over 15 years. Figure 10 shows how the effect of an FTA or no-deal Brexit on GDP compares to the Covid-19 shock. Covid-19 leads to much more significant short-term reductions in output, but eventually, the ranking is reversed, and Brexit leads to more considerable losses.

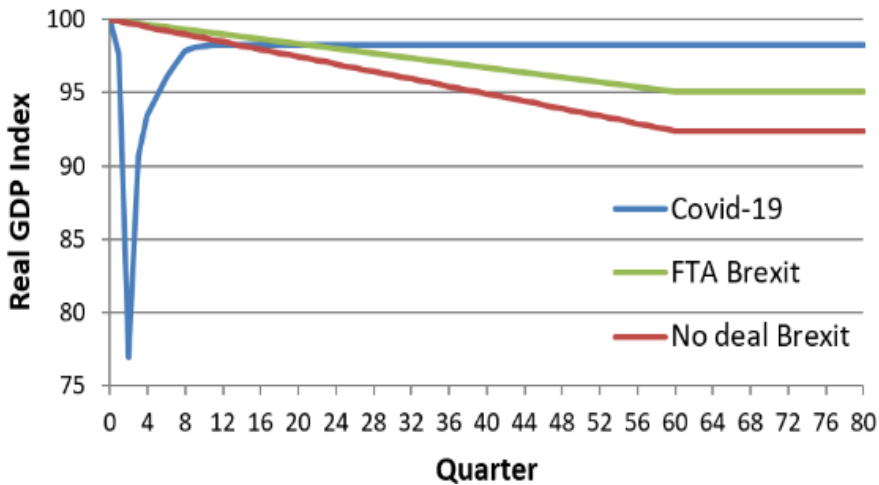


Fig 10. Forecast shock to UK GDP

Depending upon the outcome of interest, the timeframe, and how changes in output are valued. Covid-19 is likely to cause more job losses than Brexit and more significant swings in output, but the economy in 2035 may bear more scars from Brexit than from Covid-19. One way to compare the output paths (Figure 10) is to add up the output value produced in all quarters but giving less weight to output produced further in the future. Economists call this the present discounted value of future output.

Suppose we calculate the present value of the GDP paths shown in Figure 10. Comparing the present values with a baseline where output remains constant over time estimates the change in the present value of GDP caused by each shock. Figure 11 shows the results of this exercise assuming an annualized real interest rate of 4%. Using an interest rate greater than current UK rates increases the importance of Covid-19 relative to Brexit because it puts less weight on future output changes.

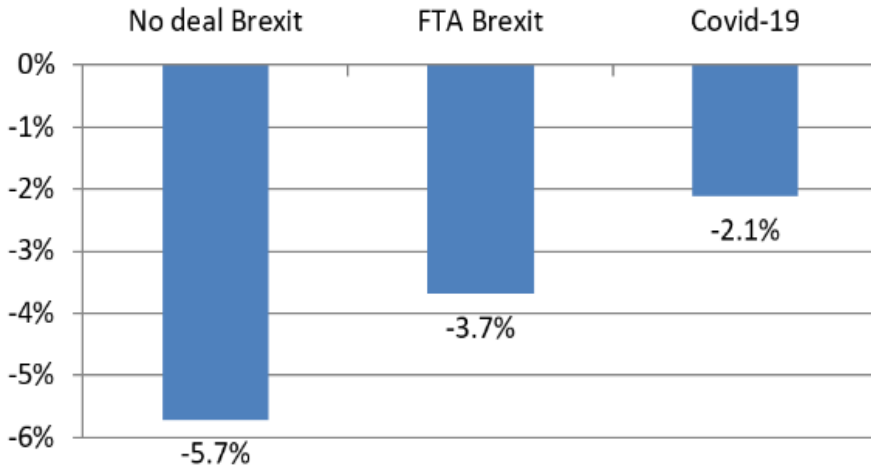


Fig 11. Change in the present value of future UK GDP

In present value terms, Covid-19 reduces UK GDP by 2.1%. However, Brexit reduces the present value of GDP by 3.7% under an FTA scenario and 5.7% if there is no deal. In this sense, Brexit is expected to be a substantially bigger economic shock than Covid-19. Covid-19 may reduce long-run output by more than 1.7%. However, the forecasts would have to be drastically wrong to overturn the conclusion that Brexit has a more enormous effect on the present value of output than Covid-19. Even under the pessimistic assumption that Covid-19 reduces long-run output by 5%, its impact on the present value of output is still slightly smaller than no-deal Brexit. Since the Covid-19 shut down much of the economy, UK GDP fell by 22% in the first half of 2020. However, the importance of an economic shock depends upon its duration and its size. Moreover, simple arithmetic shows that, in present value terms, Brexit is expected to be by far the bigger shock. In cash terms, no-deal Brexit corresponds to a £3.3 trillion decline in the present value of output, even assuming there is no future GDP growth.

The following charts illustrate what is at stake for the UK economy.

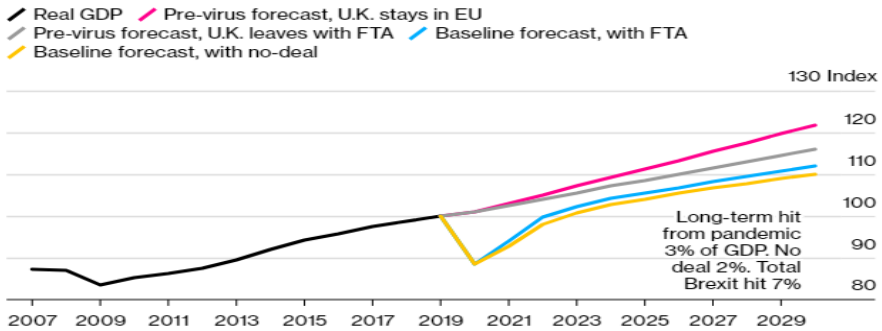


Fig 12. Economic blow

Source: Bloomberg Economics, *Notes: 2019=100

According to estimates by the Office for Budget Responsibility released on Wednesday by the first quarter of 2025, GDP will be 3.1% lower than anticipated in March. The fiscal watchdog deems the loss of output to be permanent. In a separate analysis, the OBR said transitioning into a free-trade agreement with the EU would shave 4% of GDP in the long run. A no-deal scenario -- meaning a shift to World Trade Organization rules would mean losing another 1.5%. Dan Hanson of Bloomberg Economics puts the combined cost higher still, at 7% of GDP.

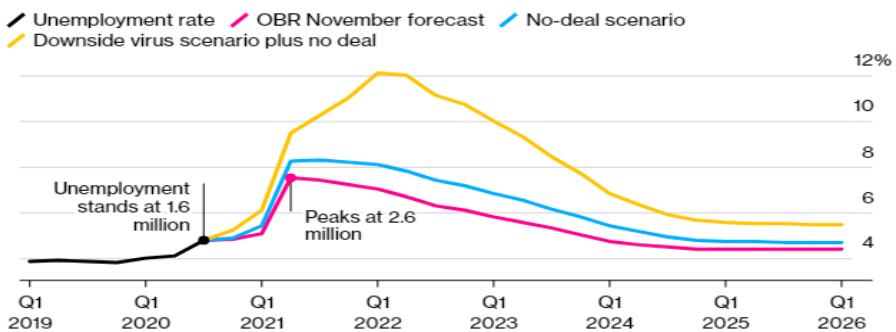


Fig 13. Job losses

Source: Office for Budget Responsibility

Unemployment is set to peak at 7.5%, or reach 2.6 million people, next year under the OBR's central scenario that a trade deal be reached. A no-deal exit pushes the rate up to 8.3%. Financial services and export-reliant manufacturing sectors such as the car industry, food and textile producers stand to be among the hardest hit if trade talks fail.

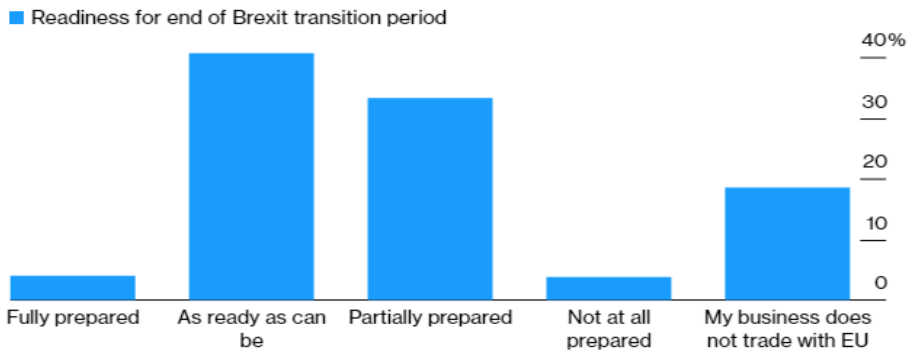


Fig 14. Work to do

Source: Bank of England Decision Maker Panel, **Notes: October monthly survey*

Last month, a survey of chief financial officers by Bank of England found that less than 4% of them were fully prepared for the end of the transition period.

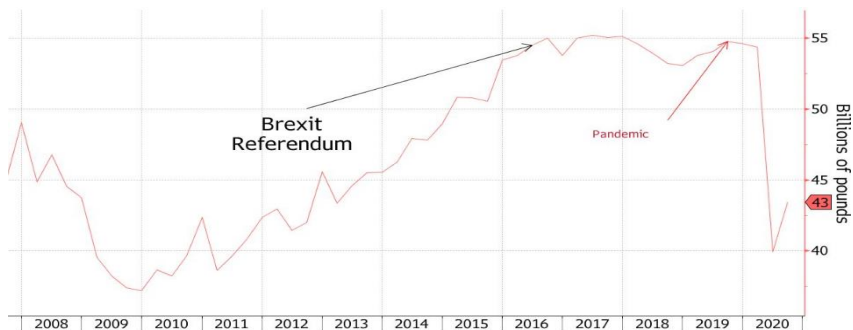


Figure 15. Business worries

Source: office for national statistics

Before the pandemic, businesses were already holding back on spending as they awaited greater clarity over Britain's post-divorce relationship with Europe. Now Covid-19 has been added to the calamities, decimating investment and risking their ability to do so in the future.

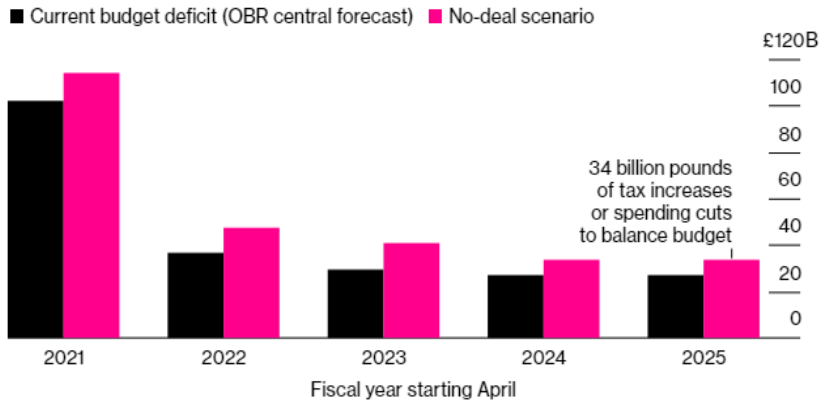


Fig 16. Fiscal damage

Source: Office for Budget Responsibility, Bloomberg calculations

**Notes: Current budget = non-investment spending including depreciation minus current receipts*

The more significant the economic shortfall, the bigger the persistent budget deficit that Chancellor of the Exchequer Rishi Sunak needs to fill. Even if a trade deal is struck, balancing day-to-day spending and revenue by the middle of the decade will require 27 billion pounds (\$36 billion) of tax increases or spending cuts, according to the OBR.

4-3. Trade negotiations with the US and potential British-Chinese agreements

4-3-1. Potential British-Chinese agreements

British Chamber of Commerce in China (BCCC) has called on the British government to strengthen trade ties to better fight Corona and the economic condition post-Brexit. China and Britain tried to reach an agreement on economic and free trade, known as the free trade agreement (FTA). British

can earn significant economic gain from dealing with China. The UK is leadership in the service sector, and China can increase leadership in new technologies. The main goal of this agreement is a fair, open, transparent, and well-regulated operating environment in China where British businesses can grow and realize their full potential. The implications of the British trade relationship with China are as follows:

Table 4. British business in China

No	Key recommendations
1	Strengthen the implementation of market reforms at all levels
2	Address longstanding and continuing concerns around cybersecurity and IT restrictions
3	Promote greater liberalization of the capital account
4	Reduce the direct presence of state-owned enterprises in the market
5	Key conversations on bilateral trade frequent and open
6	In light of COVID19, establish travel agreements to facilitating the return of British nationals.

4-3-2. US-UK Free Trade Agreement

Brexit caused uncertainty for US firms exporting and operating in the UK. Many US manufacturing, financial services, and other firms in the UK have been restructuring operations due to Brexit changes. Since Brexit, the UK has aimed to retain and strengthen its trade linkages globally. The US and other exporters will need to manage separate customs regimes and relationships for the UK and EU.

US negotiated with the UK under Trade Promotion Authority (TPA) on Oct 16-2018. It took five rounds in 2020. While the certainty of the UK-EU trade deal, the implementation of the UK-EU trade deal, and the treatment of outstanding issues may affect negotiating positions and flexibility in U.S.-UK FTA talks and potential US trade negotiations with the EU. As the UK continues to conclude other trade agreements, US businesses will lose advantages in the UK markets without a U.S.-UK FTA. Potential issues in U.S.-UK FTA negotiations are as follows:

Table 5. Potential issues in U.S.-UK FTA negotiations

No	Issues	Explanations
1	Agriculture	Some US stakeholders view the UK food safety and animal welfare regulations as protectionism. Meanwhile, the UK farmers in civil society voice concerns about the implications of US demands for greater access to the UK market and potential changes to UK food safety regulations.
2	Pharmaceuticals	The United States seeks standards to ensure that government regulatory reimbursement regimes are transparent and non-discriminatory and provide full market access for U.S. products. Some in UK civil society expressed concern that a U.S.-UK FTA could lead to the UK privatizing services or raising drug prices; UK officials repeatedly have maintained that these issues are not up for negotiation.
3	Other issues	Financial services, investment, e-commerce, and regulatory issues may be among other points of contention.
4	Ongoing U.S. UK trade frictions	The UK digital services tax, the U.S. Section 232 national security-based steel and aluminum tariffs, and various retaliatory measures could add complications. Many U.S. and UK firms see an FTA to enhance market access and align UK regulations more closely with those of the United States. Other stakeholders oppose what they perceive as efforts to weaken UK regulations. Based on the UK-EU trade deal, the UK may weigh the greater alignment with the United States that may offset costs from diverging from the EU.

5. Conclusions

The lockdown has had a significant effect on reducing the destructive effects of the COVID19, and as the process of vaccinating people progresses, the number of infected people has decreased significantly. Thus, employment and production volume has increased. The Office for Budget Responsibility (OBR) predicts that unemployment will be higher than pre-pandemic predictions until 2024 (OBR, 2021).

The government should consider some arrangements and improve the quality of social life and some sectors and industries such as traveling, cinema, sports activities, etc.

UK trade fell sharply in 2021, and Brexit played a role in this. A sizeable share of firms is experiencing issues in trading with the EU, such as delays at the border and burdensome administrative costs. This has translated into rising costs, higher prices, and reduced competitiveness. The government should seek to support businesses in transitioning to new trading relationships and ensure that border costs are minimized.

Training programs and adjustment assistance can help to facilitate transitions to other industries and it can mitigate some of the negative impacts of the shocks.

The literature is clear that there is a high risk that both the economic impacts of the coronavirus and the impact of Brexit are likely to:

- increase regional disparities;
- impact on particular groups such as blue-collar, male workers highly concentrated in some of the 'left behind' areas such as the Northern regions, South Wales, and the West Midlands;
- Affect different sectors and cumulatively have a broader effect on the economy overall.

The policy choices made thus far in the negotiations do not seem to tackle this evidence, and the government must conduct and publishes a new impact assessment to show the effects these choices will have in short to medium term.

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