BANK OF ENGLAND

Mark Carney
Governor

John Mann MP
Chair
The Treasury Committee
House of Commons
Committee Office
London
SW1A 0AA

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Dear John,

I am writing in response to the letter dated 17 July from the previous Chair of the Treasury Committee, the Rt Hon Nicky Morgan MP. Ms Morgan's letter concerned the scenarios that were published by the Bank in November 2018[1] in response to a previous request from the Treasury Committee for the Bank to publish analysis of how different Brexit outcomes would affect the Bank's ability to meet its monetary and financial stability objectives.

The scenarios that were published last November reflected work conducted by the Bank to prepare for Brexit over the period of two and half years following the referendum on the UK's membership of the EU. The Bank's contingency planning for Brexit is overseen by its Financial Policy Committee (FPC). Given the relevance to its objectives, the FPC has focused its work on identifying and seeking to mitigate risk to financial stability of a worst-case 'no deal, no transition' Brexit. As part of this work, the Committee developed worst-case Brexit scenarios to use as a benchmark in its stress testing work which ensures that the UK banking system has sufficient capital to meet the potential challenges it could face. The development of this scenario therefore predated last year's request from the Treasury Committee to publish Brexit scenarios and it was only published in response to that request.

The Treasury Committee's most recent letter asked "whether that analysis remained fully relevant given any developments in economic data, intelligence or modelling since November" and, if not, "how developments since November may have changed the outlook in each scenario and, where it aids understanding, to provide the Committee with an updated version of the economic analysis."

The Bank's analysis published last November contained a number of scenarios requested by the Treasury Committee. To remind, these **scenarios were not forecasts**—they illustrated **what could happen** under a range of key assumptions; **they did not necessarily represent what would be most likely to happen**. The scenarios used established empirical relationships to quantify the impact of the assumptions, and were constructed using the Bank's suite of macroeconomic models. To meet the Treasury Committee's request to show those scenarios relative to 'the present situation', both the November 2018 Monetary Policy Committee (MPC) forecast and the path the economy was on prior to the EU referendum were used as references.

Since November 2018, there have been some developments in economic data and financial markets which have affected the underlying path of the economy. These have been incorporated in the MPC's August *Inflation Report,* which as a result, provides an updated reference point for "the present situation." These developments do not in and of themselves merit updates to any of the Bank's November scenarios.

[1] See EU withdrawal scenarios and monetary and financial stability, published by the Bank of England on 28 November 2018.

An update of a given scenario could be warranted if the underlying assumptions have changed materially. As detailed below, these key assumptions range from trade frictions such as tariff and non-tariff barriers to the preparedness of UK businesses and infrastructure and the response of financial markets.

In summary, advancements in preparations for a No Deal No Transition scenario mean that the Bank's assessment of a worst case No Deal No Transition scenarios has become less severe. However the Bank's assessment of scenarios where there is a withdrawal agreement followed by a Transition to a WTO trading relationship or by a transition to a new Economic Partnership remain unchanged.

The remainder of this letter expands on the detail underling those assessment.

Worst Case No Deal No Transition Scenarios

Consistent with its statutory remit, the FPC has focused on outcomes that would have the greatest potential impact on financial stability. In that context, the FPC has considered the particular risks that could arise if the UK's trading relationship with the EU were to move abruptly to WTO terms (a so called 'No Deal No Transition Brexit').

To maintain the consistent provision of financial services to the real economy, UK banks must be able to absorb the impact on their balance sheets of any adverse economic shocks that may arise from Brexit. To assess their ongoing ability to do this, the FPC compared the scenario that major UK banks were tested against in the 2018 annual stress test with a worst case disorderly Brexit scenario.

That disorderly Brexit scenario was underpinned by a set of **worst case** assumptions that reflected the state of preparations in November, including:

- Border infrastructure and processes were unable to cope smoothly with new customs requirements, causing severe disruption at the border. UK exports were further reduced as, while the UK was assumed to continue to recognise EU product standards, the EU did not reciprocate.

- The UK and EU both applied the EU's current Common Customs Tariffs symmetrically.

- The UK lost access to existing trade agreements that it currently has with non-EU countries through membership of the EU.

- The EU took no further action to address risks in derivative markets, contributing to a tightening in financial conditions.

- This tightening was exacerbated by a pronounced increase in the perceived risk of holding sterling assets, which in turn was driven by uncertainty about the UK's macroeconomic framework and institutional credibility.

- The exchange rate was assumed to overshoot its new lower equilibrium level, credit spreads rose and monetary policy – reacting mechanically to balance deviations of inflation from target and output relative to potential - tightened sharply in order to bring inflation back to target.

In that scenario, there was an initial peak-to-trough decline in GDP of 8% in absolute terms, a rise in unemployment to 7½%, and inflation peaked at 6½%. In November, the FPC judged that the UK economic scenario of the 2018 stress test, to which banks were resilient, was sufficiently severe to encompass that worst case Brexit scenario. This would mean that the UK banking system was strong enough to continue to serve UK households and businesses even in the event of a disorderly Brexit.

Material risks of economic disruption remain. But as the FPC noted in its most recent *Financial Stability Report*[2], actions taken by authorities and businesses since November have resulted in some improvement in the preparedness of the UK economy for a No Deal No Transition Brexit:

- The UK has announced Transitional Simplified Procedures (TSP) for customs checks at the border, a temporary waiver on security checks

- The Port of Calais and Eurotunnel announced that they have completed their preparations on French border infrastructure.

- As a first step in preparing for new procedures, some UK traders are registered to be able to continue to trade with the EU (and vice versa)

- Some UK firms are in the process of obtaining EU certification for their products.

- In March 2019, the UK announced a no deal tariff regime, under which 87% of total imports by value will be eligible for tariff free access.

- Agreements have been reached to roll over existing EU trade deals with the rest of the world representing about 7% of the UK's total goods trade.

Subsequent to the most recent *Financial Stability Report*, the government has also announced an auto-enrolment scheme to provide UK businesses with the necessary Economic Operator Registration and Identification (EORI) numbers required to move goods into and out of the EU.

Financial sector preparations have also advanced since November. EU authorities have mitigated risks of material disruption to cleared derivatives markets by announcing temporary recognition and conditional equivalence decisions for the UK's CCPs and the regulatory framework for them. And most EU states with material uncleared derivatives activity have implemented measures which seek to address cross border contract continuity – though uncertainty remains about the scope of current or proposed legislation in some of the most material jurisdictions.

These improvements in preparedness mean that the appropriate set of assumptions to underpin a worst case scenario **would now be less severe** than those used in the disorderly scenario published in November.

From a preparedness perspective, this is reassuring. The FPC had already judged that the November scenario is encompassed by the severity of the 2018 stress test, with the consequence that the Committee continues to judge that the core of the banking system would be resilient to a worst-case Brexit.

To illustrate this crucial point and to respond to your request, the Bank has prepared an updated worst-case disorderly no deal Brexit scenario, in which the following assumptions differ from those used in the disorderly scenario published in November:

- Disruption at the border is less severe, reflecting TSP and progress in preparing border infrastructure and the introduction of TSP also delays the long run impact of customs checks on trade for a period.

- The UK applies the no deal tariff regime announced in March on all external trade.

- Reflecting agreements that have already been reached, trade deals with the rest of the world representing about 7% of the UK's total goods trade are rolled over.

[2] See the July 2019 Financial Stability Report.

- Actions taken by UK and EU authorities to address the risks of disruption in derivative markets reduce the tightening in credit conditions.
- These updated assumptions feed through to other asset prices, the level of uncertainty, and to household and business expectations.

These updated assumptions are summarised, alongside those that have been retained, in the annex to this letter. In this updated worst case scenario, shown in Figure 1, there is an initial peak-to-trough decline in GDP of 5½% in absolute terms, a rise in unemployment to 7%, and inflation peaks at 5¼%. Reflecting the reduced severity of the underlying assumptions, this scenario is again encompassed within the 2018 stress test scenario, reinforcing the FPC's confidence that the core of the UK banking system is resilient to a No Deal No Transition Brexit (Figure 2).

As Figure 3 illustrates, the scenario is sensitive to the underlying assumptions. In particular, the amount by which GDP falls in the near term depends heavily on the extent of trade disruption. The size of the medium-term hit to GDP is affected by the change in trade barriers in the event of No Deal and the strength of the amplifier effects (including credit spreads and net migration).

Scenarios that incorporate a withdrawal agreement followed by a transition to a WTO trading relationship and or a transition to a new Economic Partnership

In the **Economic Partnership** scenarios, the UK was assumed to leave the EU with a withdrawal agreement and enter a future relationship akin to that outlined in the Political Declaration setting out the framework for the future relationship between the European Union and the United Kingdom. That declaration outlined comprehensive arrangements that would create a free trade area in goods, and a level of liberalisation in trade in services that would go well beyond WTO commitments. In those scenarios, cumulative GDP growth over a 5 year horizon would have been between 1¾% higher and ¾% lower than the MPC's November 2018 forecast. The breadth of that range is driven by the variety of assumptions about trading arrangements that would be consistent with the terms of objectives and principles of the economic partnership set out in the Political Declaration.

Because the Withdrawal Agreement - which includes an implementation period - and the Political Declaration have not changed, the range of assumptions contained in the November Economic Partnership scenarios remains appropriate for analysis of how the Withdrawal Agreement would affect the Bank's ability to deliver its objectives.

In the Transition to WTO scenarios, the UK was assumed to leave the EU with a withdrawal agreement and, after an implementation period of two years, enter trading arrangements with the EU on WTO terms. That would include tariffs, quotas, customs checks and other non-tariff barriers. In that scenario, cumulative GDP growth over a five-year period would have been between 2½% and 5½% lower than the MPC's November 2018 forecast. The key drivers of that range were the degree of preparations for the change in trading arrangements by the end of the two-year implementation period – including to border infrastructure on both sides of the channel and business preparations for new border checks and regulatory procedures – together with the response of households and the impact of reduced openness on productivity.

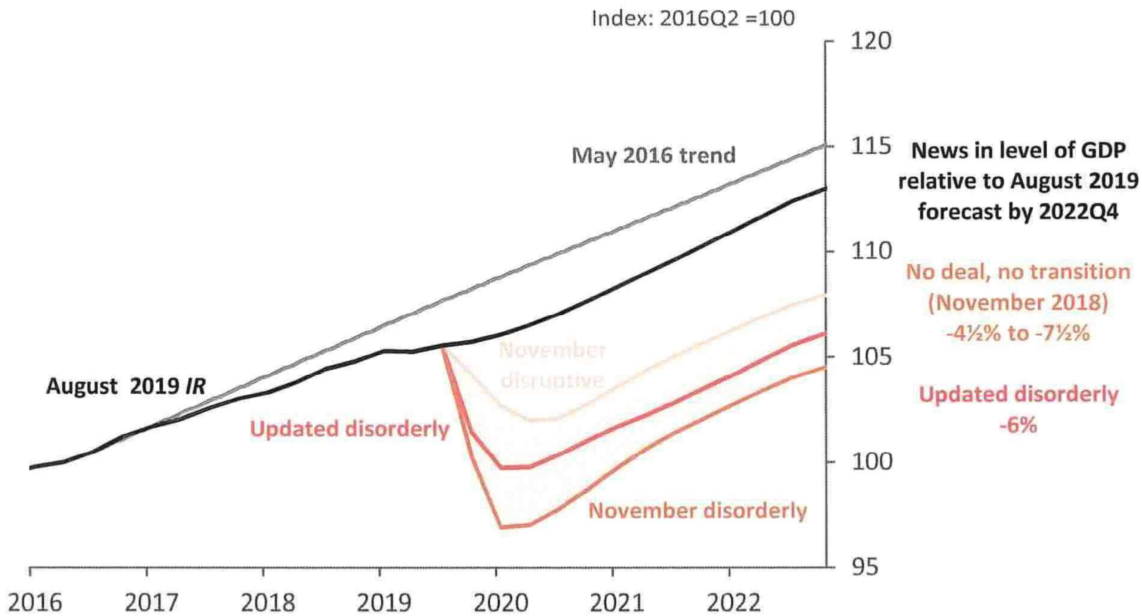
In the Bank's judgment, the range of assumptions used in these November scenarios remains appropriate, and therefore it is not necessary to update either set of scenarios.

To reiterate, in response to the Treasury Committee's request, in November the Bank published scenarios that entailed a variety of transitions to various Brexit outcomes. Developments since then have merited an update to only the disorderly No Deal No Transition scenario. The economic impacts of this worst case scenario are judged to be less severe than in November because of progress in preparing for No Deal. From the perspective of the Bank's policy objectives what matters most is that UK banks are capitalised to withstand much more adverse combinations of domestic and global shocks and to keep serving the UK's households and businesses. In this context the FPC judged in its most recent *Financial Stability Report* that the UK banks had sufficient capital to continue lending through both a worst-case, disorderly Brexit and a global trade war.

For reference, the MPC will publish the next quarterly assessment of its central forecast for the UK economy with the *Inflation Report* due to be published on 7 November.

Yours,

Figure 1: GDP outcomes in November No Deal No Transition scenarios* and updated disorderly Brexit scenario



* No Deal No Transition scenarios have been mechanically mapped onto the August 2019 IR baseline, assuming a departure date of 31st October 2019.

Figure 2: Common equity Tier 1 capital drawdown in the 2018 ACS, and the November and updated No Deal No Transition disorderly scenarios

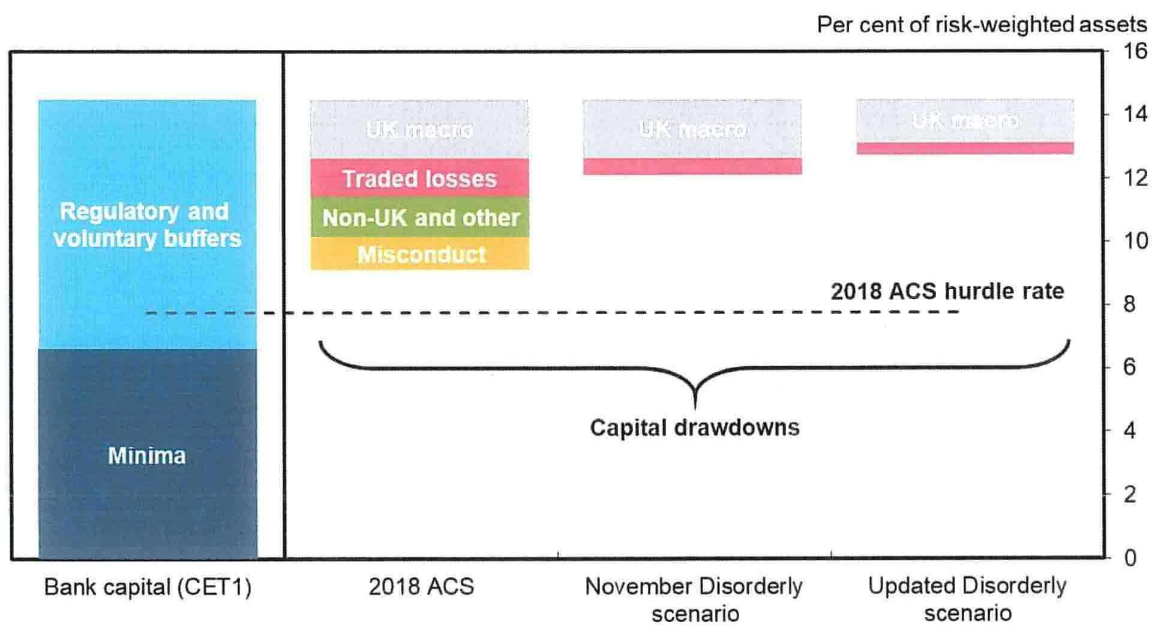
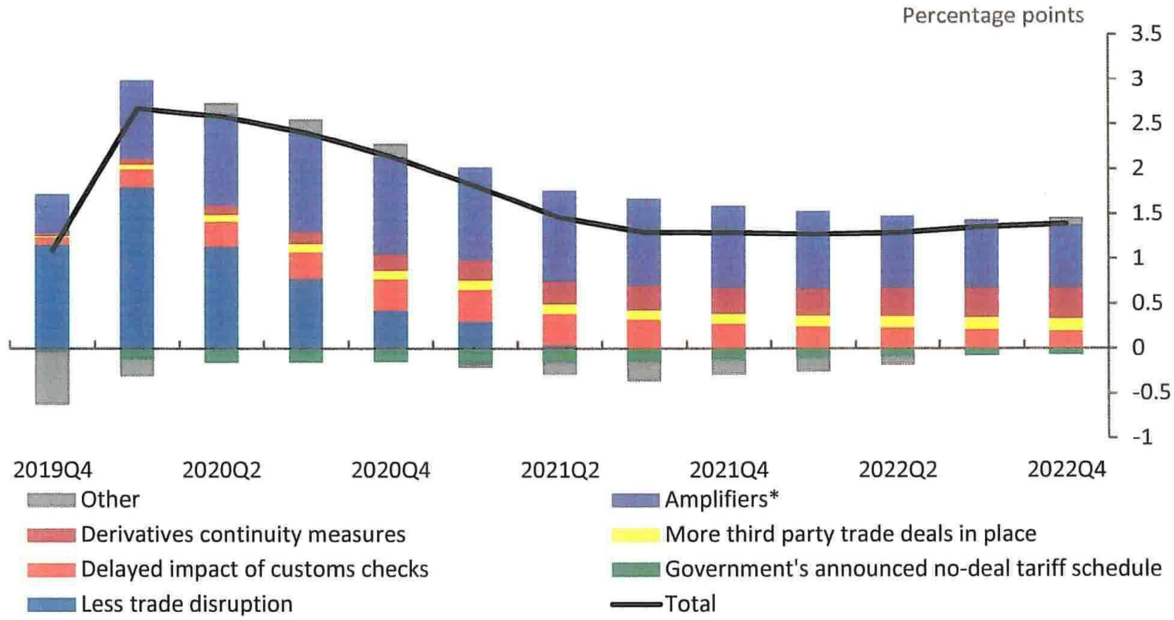


Figure 3: Impact on GDP of adopting updated assumptions, relative to November Disorderly Brexit scenario



* Includes higher net migration, a smaller rise in credit spreads, gilt risk premia and Bank Rate, and a smaller rise in uncertainty; partially offset by a smaller depreciation in the exchange rate.

Table: Summary of assumptions made in "No Deal No Transition" scenario

No Deal No Transition				**Impact of changed assumptions**	
Assumption		**November Disorderly**	**Updated Disorderly** *Italics indicates changed assumption*	**Reduction in peak to trough fall in GDP, pp**	**Change to level of GDP at year 3, %**
Trading arrange ments	Tariffs	EU applies Common Customs Tariff. UK applies symmetric tariffs.	EU applies Common Customs Tariff. *UK applies the Government's announced no deal tariff regime for the scenario period.*	0	0
	Customs barriers	Customs checks on UK-EU trade introduced.	Customs checks introduced at the EU border, on goods entering the EU. *For goods entering the UK, checks initially take place away from the border, until TSP expires in January 2021 at which point checks are introduced at the UK border.*	+ ¼	+ ¼
	Other goods barriers	UK recognises EU standards. EU does not reciprocate. Regulatory checks required for new and existing product lines.			
	Services barriers	Revert to WTO terms. Financial services lose passporting rights. Broadcasting rights lost. Increased costs for transport services as firms require EU license.			
	Trade deals	No new trade deals implemented before 2023. UK loses access to existing trade agreements between EU and third countries.	No new trade deals implemented before 2023. *Of the existing trade agreements between the EU and third countries, agreements representing about 7% of the UK's total goods trade are assumed to have been rolled over. The UK loses access to the remainder.*	0	+ ¼
Preparedness for new trading arrangements		Severe disruption at the border reflecting customs checks.	*Border disruption is less severe than in the November scenario, reflecting TSP and progress in preparing border infrastructure.*	+ 1¾	0

Macroeconomic policy	Monetary policy responds mechanically to balance deviations of inflation from target and output relative to potential. Bank Rate rises to 5.5%.	Monetary policy responds mechanically to balance deviations of inflation from target and output relative to potential. Bank Rate rises to 4¼%		
	Automatic fiscal stabilisers operate. No discretionary changes in tax or spending policy. Countercyclical capital buffer cut from 1% to 0%.			
Financial conditions	Financial conditions tighten due to weaker and more uncertain economic conditions. EU does not take action to address remaining risks in derivative markets. Negative spillovers to other UK markets. Overall, interest rates on loans to households and businesses rise by 250bps more than Bank Rate. Uncertainty about institutional credibility leads to a pronounced increase in risk premia on sterling assets.	Financial conditions tighten due to weaker and more uncertain economic conditions. *EU authorities' actions mitigate risks in cleared derivative markets, and partially mitigate risks in uncleared derivative markets.* Negative spillovers to other UK markets. Overall, interest rates on loans to households and businesses rise by 175ps more than Bank Rate. Uncertainty about institutional credibility leads to a pronounced increase in risk premia on sterling assets.	+¼	+ ¾
Macroeconomic uncertainty and income expectations	Index rises by 2 standard deviations to levels only exceeded in the financial crisis.	*Index rises by 1 ½ standard deviations.*	+ ½	0