Financial Policy Summary and Record of the Financial Policy Committee Meeting on 26 February 2019

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This is the record of the Financial Policy Committee meeting held on 26 February 2019.

It is also available on the Internet: https://www.bankofengland.co.uk/financial-policy-summary-and-record/2019/march-2019

The Financial Policy Committee (FPC) was established under the Bank of England Act 1998, through amendments made in the Financial Services Act 2012. The legislation establishing the FPC came into force on 1 April 2013. The objectives of the Committee are to exercise its functions with a view to contributing to the achievement by the Bank of England of its Financial Stability Objective and, subject to that, supporting the economic policy of Her Majesty's Government, including its objectives for growth and employment. The responsibility of the Committee, with regard to the Financial Stability Objective, relates primarily to the identification of, monitoring of, and taking of action to remove or reduce systemic risks with a view to protecting and enhancing the resilience of the UK financial system. The FPC is a committee of the Bank of England.

The FPC's next policy meeting will be on 5 July 2019 and the record of that meeting will be published on 11 July.

Financial Policy Summary, March 2019

The Financial Policy Committee (FPC) aims to ensure the UK financial system is resilient to, and prepared for, the wide range of risks it could face — so that the system can serve UK households and businesses in bad times as well as good. At its meeting on 26 February, the FPC reviewed developments since its meetings on 20 and 27 November. It judged that:

The core of the UK financial system, including banks, dealers and insurance companies, is resilient to, and prepared for, the wide range of risks it could face, including a worst case disorderly Brexit.

Most risks to UK financial stability that could arise from disruption to cross-border financial services in a no-deal Brexit have been mitigated.

- Extensive legislative and other preparations have been made by UK authorities to ensure UK households and businesses can use existing and new services from EU financial institutions. EU authorities have mitigated risks of material disruption to cleared derivatives markets.
- However, some disruption to cross-border services is possible and, in the absence of other actions by EU authorities, some potential risks to financial stability remain. Although these would primarily affect EU households and businesses, they could also be expected to spill back to the UK in ways that cannot be fully anticipated or mitigated.
    - UK and global banks are transferring activities to EU-incorporated entities, but are not yet in positions to provide the full range of wholesale banking services to EU clients.
    - The process of migrating businesses, assets and contracts in a short period also poses operational risks, which could disrupt services in the EU.
    - Banks in EU countries, which have not passed relevant legislation, and their UK counterparty banks will also be less able to manage the risk arising from their uncleared derivative positions.

The core banking system is strong enough to withstand the economic shocks that would accompany a worst case disorderly Brexit.

- Major UK banks' capital ratios are more than three times higher than before the global financial crisis. These banks have large buffers of capital that can be used to absorb losses while continuing to lend to households and businesses.
- As a result, they would be resilient to a worst case disorderly Brexit scenario in which there is: a sudden imposition of trade barriers with the EU; loss of existing trade agreements with other countries; severe customs disruption; a sharp increase in the risk premium on UK assets; and negative spillovers to wider UK financial markets.

- In the event that severe global stresses were to emerge at the same time as a worst case disorderly Brexit, generating an even deeper downturn in the UK economy, the banking system would have sufficient capital to withstand the resulting losses on its UK and international exposures.

Financial stability is not the same as market stability. Significant market volatility is to be expected in a disorderly Brexit. However, markets have proved able to function effectively through volatile periods.

- In a disorderly Brexit, a range of UK asset prices – including the sterling exchange rate, equities, corporate and government debt and bank funding costs – would be expected to adjust sharply, tightening financial conditions for UK households and businesses.
- EU banks and insurance companies could immediately face tougher prudential requirements on their holdings of UK sovereign and bank debt when the UK leaves the EU, reducing demand for UK assets.
- More generally, the UK faces risks from a reduction in foreign investor appetite for UK assets, which could amplify any market volatility and repricing of assets in a disorderly Brexit. Commercial Real Estate (CRE) and leveraged lending markets in particular are dependent on foreign capital.
- As demonstrated after the referendum in 2016, sterling markets are able to function effectively through markedly volatile periods. The strength of the core financial system, including banks, dealers and insurance companies, supports the markets on which the economy relies.

Major UK banks are able to withstand severe market disruption and, as a further prudent precaution, the Bank of England has operations in place to lend in all major currencies.

- With over £1 trillion of liquid assets, major UK banks are able to meet their maturing obligations for many months without any need to access wholesale funding or foreign exchange markets.
- The Bank is able to lend in all major currencies. The FPC welcomes the recent Bank decision to increase the frequency of the Bank's sterling liquidity operations and to initiate a new weekly Liquidity Facility in Euros (LiFE), alongside the existing weekly dollar lending facility.

The underlying vulnerabilities in the domestic and global economies have not, on balance, changed since the November *Financial Stability Report (FSR)*. In light of this assessment the FPC is maintaining the UK countercyclical capital buffer (CCyB) rate at 1% in 2019 Q1.

- The tightening of financial conditions and the slowing in domestic and global growth in late 2018 represent the partial realisation of some risks that had been previously identified by the FPC, rather than an increase in underlying vulnerabilities.
- In the global economy, debt vulnerabilities remain material in China and some emerging markets, the US corporate sector and Italy.
- In the UK, credit growth has slowed but is in line with income growth and debt servicing burdens remain low, consistent with a standard level of underlying vulnerability.
- Measures of implied volatility and the valuation of some assets factor in a relatively benign outlook for inflation, and appear inconsistent with the degree of uncertainty about a range of economic policies in the global economy.

These vulnerabilities are reflected in the design of the 2019 annual cyclical scenario (ACS) stress test for UK banks, details of which are set out in the '*Key Elements*' document which has been published alongside this summary.

- Reflecting the FPC's assessment that the underlying vulnerabilities are broadly unchanged on the year, the stress test scenario is very close to that in the 2018 ACS. As such, it remains tougher than the financial crisis. The FPC and Prudential Regulation Committee (PRC) will use the test to assess bank balance sheets and the resilience of the financial system.
- The FPC agreed that from 2020, the ACS will assess the ring-fenced subgroups of existing ACS participant banks on a stand-alone basis.

Table 1 Checklist of actions to avoid disruption to end-users of financial services during Brexit

This checklist reflects the risk of disruption to end-users, including households and companies, if barriers emerge to cross-border trade in financial services. The risk assessment takes account of progress made in mitigating any risks. It assesses risks of disruption to end-users of financial services in the UK and, because the impact could spill back, also to end-users in the EU.[(1)]

Risks of disruption are categorised as low, medium or high. Arrows reflect developments since November. Blue text is news since the FPC's previously published checklist in the *Financial Stability Report* in November 2018.[(2)]

The checklist is not a comprehensive assessment of risks to economic activity arising from Brexit. It covers only the risks to activity that could stem from disruption to provision of financial services.

Most risks to UK financial stability that could arise from disruption to cross-border financial services in a no-deal Brexit have been mitigated.

	Risk to UK	Risk to EU	
Ensure a UK legal and regulatory framework is in place	↓		Following the passage of the EU (Withdrawal) Act, the FPC identified 16 pieces of secondary legislation that are particularly important to mitigate risks of disruption to users of financial services. Of these, 14 have become law, including the temporary regimes to allow EU banks, insurers, central counterparties (CCPs) and asset managers to serve UK customers. The last two of the 16 statutory instruments (SIs) are expected to complete the legislative process shortly.
OTC derivatives (cleared)		↓	The UK government has legislated to ensure that UK businesses can continue to use clearing services provided by EU-based clearing houses. The European Commission has provided a temporary and conditional equivalence decision in respect of the UK's regulatory framework for UK CCPs. The European Securities and Markets Authority (ESMA) has subsequently announced the recognition of the three UK CCPs for 12 months in a no-deal scenario and agreed the co-operation arrangements to support this with the Bank. This will allow EU counterparties to continue clearing existing trades, and new trades, with UK CCPs.
Insurance contracts		↓	The UK government has legislated to ensure that the 16 million insurance policies that UK households and businesses have with EU insurance companies can continue to be serviced after Brexit. Although UK insurance companies are making good progress in restructuring their business in order to serve their 38 million EU customers after Brexit, at least 9 million EU policyholders risk not being able to make claims or pay premiums after Brexit. Some EU countries are making national legislation to support affected policyholders. And the European Insurance and Occupational Pensions Authority (EIOPA) has published recommendations to national authorities supporting recognition or facilitation of UK insurance companies' continued servicing of EU contracts.
Asset management	↓	↓	EU rules allow asset managers to delegate the management of their assets to entities outside the EEA when a co-operation agreement is in place between the authorities. Co-operation agreements between the Financial Conduct Authority (FCA) and EU National Competent Authorities have been agreed. The UK government has legislated for EU asset management firms to continue operating and marketing in the UK after exit. And to operate in the EU, the largest UK asset managers are expected to complete their establishment of EU authorised management companies before exit.

(1) In most cases, the impact on EU end-users will apply to the wider European Economic Area (EEA).
(2) Bank of England *Financial Stability Report*, November 2018.

In the absence of actions by EU authorities, some risks remain. Although these issues primarily affect EU households and businesses, they can also be expected to spill back to the UK.

	Risk to UK	Risk to EU	
Banking services			The UK government has legislated to ensure that UK households and businesses can continue to be served by EU-based banks after Brexit. EU authorities have not taken similar action. As a result major UK and global banks are in the process of transferring their EU clients to new (or expanding) subsidiaries in the EU so that they can continue providing services to those clients. All material subsidiaries in the EU have now been authorised. However, there are operational risks to the readiness of those subsidiaries, which will disrupt provision of services by them. For example, only 10%–20% of most of the major firms' EU clients have completed the necessary two-way documentation and are ready to enter into trades.
OTC derivative contracts (uncleared)			Certain 'lifecycle'[3] events will not be able to be performed on cross-border derivative contracts after Brexit. This could affect £26 trillion of uncleared derivatives contracts between the EU and UK, of which an increasing share (£20 trillion) matures after March 2019. This could compromise the ability of derivatives users to manage risks, and could therefore amplify any stress around the UK's exit from the EU. The UK government has legislated to ensure that EU banks can continue to perform lifecycle events on contracts they have with UK businesses. The EU Commission does not intend to act to allow UK banks to continue to perform lifecycle events on the contracts they have with EU banks and other businesses. So EU banks and businesses, and the UK banks with which they deal, will be affected. Individual countries have continued to take steps to mitigate this risk at a national level. A number of EU states with material uncleared derivatives activity have proposed or implemented legislative measures which seek to address this risk but the scope and effectiveness of these measures will vary between jurisdictions. Notably, there remains particular uncertainty about the scope of current or proposed legislation in jurisdictions which account for more than 40% of the notional value of outstanding contracts.
Personal data			The UK government is legislating to continue to allow the free flow of personal data from the UK to the EU. Once in effect, this would reduce disruption to UK households' and businesses' use of EU financial service providers. The European Commission has indicated that it does not intend to take similar action to ensure the free flow of personal data from the EU to the UK in a no deal scenario. This may restrict EU households and businesses from continuing to access UK financial service providers. UK households and business may also be affected due to the two-way data transfers required to access certain financial services. Companies can add clauses into contracts in order to comply with the EU's cross-border personal data transfer rules. The majority of firms intend to rely on these clauses, but these are subject to some legal and operational risk.
Implementation period to allow mitigating actions by firms			Financial institutions need time to complete any necessary restructuring of their operations and re-papering of contracts. In November, the European Council endorsed a Withdrawal Agreement that includes an implementation period. If ratified, such an implementation period would reduce all of the risks set out in the FPC's checklist.

(3) These lifecycle events include amendments, compressions, rolling of contracts, or exercise of some options.

Table 2 Other risks of disruption to financial services

These risks could cause some disruption to economic activity if they are not mitigated and the UK leaves the EU without an agreement or implementation period. The FPC judges their disruptive effect to be somewhat less than that of those issues in its checklist.

Some disruption to cross-border services is possible. But these issues are unlikely to cause financial instability with material economic effect.

Access to euro payment systems	The Single Euro Payments Area (SEPA) schemes are currently used by UK payment service providers (PSPs, including banks) to make lower value euro payments (such as bank transfers between businesses, mortgage and salary payments) on behalf of their customers. If that is to continue after Brexit, the European Payments Council (EPC) will need to grant SEPA access to the UK. UK Finance (the trade association for UK banking and financial services) has made an application to maintain UK participation in SEPA. EPC's decision, which is subject to non-objection by the European Commission, will be made on 7 March. If UK PSPs were unable to participate in SEPA, some euro payments made by or to their customers could be routed through high-value systems such as TARGET 2. This would be more costly, and may in some cases take longer to process. UK banks intend to access TARGET 2 through their EU branches or subsidiaries, or through correspondent relationships with other banks.
Ability of EEA firms to trade on UK trading venues	EU-listed or traded securities are traded heavily at UK venues which offer deep liquidity pools for a range of securities traded by UK and EU firms. The EU's Trading Obligation requires EU investment firms to trade EU-listed or traded shares, and some classes of OTC derivative, on EU trading venues (or venues in jurisdictions deemed equivalent by the EU). The UK will also have a reciprocal trading obligation when it leaves the EU. Firms and venues are taking action to ensure they can trade securities in both the EU and UK and other equivalent jurisdictions. However, the process of adjustment might pose operational risks. And it would fragment liquidity across jurisdictions and venues, which may particularly impact EU firms' trading given their reliance on UK liquidity pools. The EU and UK could deem each other's regulatory frameworks as equivalent, thereby mitigating risks of disruption.
Settlement finality protection for financial market infrastructure	After the UK exits the EU, UK financial market infrastructure firms (FMIs) will no longer be protected under EU law against payments or transfers being revoked, or collateral being clawed back, in the event that an EEA member enters insolvency. Ten EEA member states (Belgium, Denmark, Finland, France, Germany, Italy, Norway, Portugal, Spain, and Sweden) have implemented national legislation that is intended to provide protection for FMIs in non-EU countries. This accounts for the majority of members of UK FMIs. For countries where protections are not in place, UK FMIs can implement other mitigants, including seeking legal opinions to clarify the extent of protections in other jurisdictions or restructuring EU members' participation to jurisdictions where protections are in place.

Some issues could reinforce the risk faced by the UK of a reduction in foreign investor appetite for UK assets.

Increased prudential requirements	EU regulations subject EU banks' and insurance companies' non-EU exposures (which will include their holdings of UK securities) to stricter capital and liquidity requirements, as well as imposing some restrictions on holdings of non-EU assets. EU banks and insurers hold less than 10% of gilts and less than 15% of bank debt. UK legislation, which is aligned with EU rules, would similarly subject UK banks and insurance companies to stricter capital and liquidity requirements on non-UK exposures. Once the Financial Services and Markets Act SI has become law, UK regulators will have the power to delay the impact for UK firms. The Bank detailed how it will use the transitional power in its recent published policy statement.
Credit Rating Agencies (CRAs)	EU rules will prevent some banks and insurance companies in the EU from calculating prudential requirements using ratings issued by UK CRAs, unless those ratings are endorsed by an EU CRA. This issue will mainly affect banks and insurers calculating requirements under the standardised approach/standard formula. ESMA has agreed a co-operation agreement with the FCA; and UK CRAs have registered EU entities to endorse UK ratings. But to enable this endorsement, ESMA must assess the regulation of UK CRAs (which after Brexit will be undertaken by the FCA) to be as stringent as EU regulation. If this is not completed by exit, the EU regime provides for a transition to allow continued regulatory use of ratings issued only by a UK CRA whose registration is withdrawn, for a period of three months, extendable by a further three months. This issue will also apply in reverse to the ability of UK banks and insurance companies to rely on ratings issued by EU CRAs. However, the FCA is working to enable endorsement from the EU by exit day, including completing the 'as stringent as' assessment of the EU's regime and registering UK-based CRAs. In addition, the UK CRA regulation which has been made law contains a transition regime to allow continued regulatory use of ratings issued or endorsed before exit day by EU CRAs which are, with a group affiliate, registered or apply for registration in the UK for 12 months.

Record of the Financial Policy Committee meeting held on 26 February 2019

1. The Committee met on 26 February 2019 to agree its view on the outlook for financial stability and, on the basis of that, its intended policy action.

2. The Committee agreed that the core of the UK financial system, including banks, dealers and insurance companies, was resilient to, and prepared for, the wide range of risks it could face, including a worst case disorderly Brexit. This meant that the system could serve UK households and businesses in bad times as well as good.

Financial stability risks arising from Brexit

3. The FPC reviewed progress on its checklist of actions that would mitigate risks of disruption to important financial services used by households and businesses to support their economic activity in the event of a no-deal Brexit. The primary developments since November had been:

- 14 of the 16 pieces of secondary legislation that the FPC judged to be particularly important to mitigate risks of disruption to users of financial services had become law and the remaining 2 were expected to complete the legislative process shortly.

- Following the European Commission's temporary and conditional equivalence decision on the UK's regulatory framework for UK central counterparties (CCPs), the European Securities and Markets Authority (ESMA) had announced that three UK CCPs would be recognised for 12 months in a no-deal scenario. EU counterparties would now be able to continue to clear existing trades, as well as new trades, with UK CCPs. This removed the need for EU clearing members' contracts with UK CCPs to be transferred or closed out, and mitigated risk of material disruption to cleared derivatives markets.

- The European Insurance and Occupational Pensions Authority (EIOPA) had published recommendations to national authorities on cross-border insurance contracts which would support UK companies' continued servicing of EU customers' policies.

- Cooperation agreements had been signed between UK and EU authorities which would allow delegation of management of EU asset managers' assets to UK entities. Further UK legislation enabled EU asset management firms to continue marketing in the UK after exit. The largest UK asset managers' preparations to continue operating in the EU had advanced.

4. **The Committee concluded there had already been extensive legislative and other preparations made by UK authorities to ensure UK households and businesses could use**

existing and new services from EU banks, insurers, asset managers and CCPs. Further progress since November meant that most risks to UK financial stability that could arise from disruption to cross-border financial services in a no-deal Brexit had now been mitigated.

5. However, the Committee noted that, without further action from EU authorities some potential risks to financial stability remained:

- UK and global banks' process of migrating businesses, assets and contracts in a short period to enable them to continue to provide banking services to the EU now posed operational risks.

- Most major firms had reported insufficent progress by EU clients in completing the necessary documentation, and it was now clear that they would not be ready to enter into new contracts at the end of March. As EU customers relied on UK banks for around half of their wholesale banking services, the inability to continue doing so would pose significant disruptions. It could also have second-order spillover effects to the UK, including through constraints on market capacity.

- Lack of action by the EU meant that UK banks might not be able to perform life-cycle events on contracts they had with EU counterparties. This would mean that UK and EU banks would be less able to manage the risk arising from their uncleared derivative positions.

- The absence of action by the European Commission in respect of the flow of personal data from the EU to the UK might restrict EU customers' ability to access UK financial services. UK customers might also be affected due to the two-way data transfers required to access certain financial services.

6. **The FPC judged that in the absence of other actions by EU authorities, some potential risks to financial stability remained. It concluded that although these issues would primarily affect EU households and businesses, they could also be expected to spill back to the UK in ways that could not be fully anticipated or mitigated.**

7. The Committee also reviewed progress in addressing other risks which could cause some disruption in the event of a no-deal Brexit. The FPC had previously judged the disruptive effect to be somewhat less than that of those issues in its checklist.

- EU actions were in train to address risks of disruption to euro payments made via UK payment service providers, including banks.

- EU clients might not be able to trade certain securities on UK trading venues. Firms' and venues' process of adjustment might pose operational risks and would fragment liquidity.

- EEA member states in which most of the UK financial market infrastructure firms' (FMIs') clearing members were located had implemented settlement finality protection for non-EU FMIs.

8. **The FPC concluded that while some of these issues posed some risk of disruption to cross-border services, they were unlikely to cause financial instability with material economic effect.**

9. **Some other issues would also reinforce the risk faced by the UK of a reduction in foreign investor appetite for UK assets.** These were:

- EU regulations subjected EU banks' and insurance companies' non-EU exposures to higher capital and liquidity requirements, as well as imposing some restrictions on holdings of non-EU assets. EU banks and insurers held less than 10% of gilts and less than 15% of UK bank debt.

- EU-based banks and insurance companies would not be able to continue to utilise UK-issued credit ratings for prudential purposes in the long term after exit, unless ESMA provided a positive assessment of the regulation of UK Credit Rating Agencies (CRAs).

Resilience of major banks to a disorderly Brexit

10. 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 might arise from Brexit. To assess their ability to do this, at its November meeting the FPC had compared the scenario that major UK banks had been tested against in the 2018 annual stress test with a 'Disorderly Brexit Scenario' which was underpinned by a set of 'worst case' assumptions.

11. Fulfilling a request from the Treasury Select Committee, the assumptions underpinning the worst case disorderly scenario had been set out in the November *Financial Stability Report* (*FSR*) and published on 28 November.[1] They included: a sudden imposition of trade barriers with the EU; loss of existing trade agreements with other countries; severe customs disruption; a sharp increase in the risk premium on UK assets; and negative spillovers to wider UK financial markets.

12. Given these assumptions, the scenario had been produced using the Bank of England's suite of macroeconomic models and established economic relationships. In this scenario, GDP fell by 8% from its level in 2019 Q1. A sharp fall in sterling, alongside the imposition of tariffs on EU imports, pushed up costs of imports and overall CPI inflation picked up to peak at 6½%. This created a challenging trade-off between economic activity and inflation. In order to bring inflation back to the

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[1] For further details see also 'EU withdrawal scenarios and monetary and financial stability: A response to the House of Commons Treasury Committee', Bank of England, November 2018.

2% target, Bank Rate rose sharply and averaged 4% over the first three years of the scenario. The weakness of output and incomes, alongside rising interest rates and a pronounced tightening of financial conditions, resulted in sharp falls in some asset prices. Residential property prices fell by 30% and commercial property prices fell by 48%. The reductions in the UK economy's supply capacity meant that, although output fell by more than it had done in the financial crisis, unemployment rose by less than it had done, peaking at a rate of 7½%

13. In the 2018 annual cyclical scenario (ACS) stress test, UK GDP fell by 4.7%, the UK unemployment rate rose to 9.5%, UK residential property prices fell by 33% and UK commercial real estate (CRE) prices fell by 40%. The scenario also included a sudden loss of overseas investor appetite for UK assets, a 27% fall in the sterling exchange rate index and Bank Rate rising to 4%.

14. In November, the FPC had judged that the severity of the ACS scenario for the UK was broadly similar to the worst case disorderly Brexit scenario. Because the major banks had shown in November that they would be resilient to the annual stress test, the Committee had judged the banking system to be also resilient to a worst case disorderly Brexit.

15. The ACS had also included a severe global recession and a separate stress of conduct redress costs. Based on the ACS results, the Committee had judged that in the event that severe global stresses were to emerge at the same time as a worst case disorderly Brexit, generating an even deeper downturn in the UK economy, the banking system would have sufficient capital to withstand the resulting losses on its UK and international exposures.

16. The Committee reviewed developments in the resilience of the banking system. Resilience had, on balance, increased over the past year.

17. Major UK banks' aggregate Tier 1 capital ratio was 17.0%, around 30 basis points higher than it had been a year earlier when they entered the 2018 stress test.

18. Major UK banks had reported an aggregate statutory return on equity of 6.3% in 2018, a 2.4 percentage point increase from 3.9% in 2017. An increase in statutory profits in 2018 had enabled an increase in distributions without compromising capital resilience.

19. The major UK banks had provisioned a further £6.5 billion for misconduct issues, and had reached settlements on a number of conduct issues, including £5.6 billion with the US Department of Justice on residential mortgage-backed securities. On that basis, the Committee expected additional stressed misconduct costs to be materially lower in future, provided that no new significant issues emerged and there were no material upwards revisions to existing issues.

20. **The Committee therefore continued to judge that major UK banks would be resilient to, rather than amplify, a worst case disorderly Brexit and that the UK banking system would also have sufficient capital to withstand the additional losses on its UK and international exposures if severe global stresses were to emerge at the same time as a worst case disorderly Brexit.**

Risk of market volatility

21. The Committee noted that, in the event of a disorderly Brexit a range of UK asset prices, including the sterling exchange rate, equities, corporate and government debt, and bank funding costs, would be expected to adjust sharply. Financial stability was not the same as market stability.

22. A reappraisal of the prospects for the UK economy would change the return required by domestic and international investors on UK assets, contributing to a tightening in financial conditions for UK households and businesses. To some extent this was already apparent in some asset classes: Bank staff estimates of the risk premium on UK-focused equities had risen by 0.9 percentage points since the EU referendum, compared to a decline of 1.2 and 1.7 percentage points on the Euro Stoxx and S&P 500 over the same period.

23. Several CRAs had warned that a disruptive or disorderly Brexit could lead to negative ratings actions – in the form of downgrade, negative outlook, or negative watch – for the UK government. UK bank and corporate ratings might also be affected. In some cases this could have direct implications for the willingness of investors to hold such assets. This could happen at the same time as prudential requirements on EU holdings of UK assets were increasing.

24. More generally, the UK faced risks from a reduction in foreign investor appetite for UK assets, which could amplify any market volatility and repricing of assets in a disorderly Brexit. The UK current account deficit had widened in 2018 Q3 to 5.0% of annualised GDP, which was large by historical and international standards. The UK current account deficit, and in particular the nature of its financing, made the UK more vulnerable to a reduction in foreign investor appetite for UK assets, and an associated tightening in credit conditions for UK households and businesses.

25. Since 2016, the UK current account deficit had primarily been funded by capital inflows from foreign investors. There had been foreign investor outflows in 2018 Q2 and Q3 from the volatile 'other investment' category, which mostly consisted of banking deposits and short-term loans. In 2018 Q4, however, the previous pattern of inflows was estimated to have resumed. Direct and portfolio investment inflows from abroad had continued through 2018.

Market Resilience

26. The FPC considered the resilience of market-based finance to a disorderly Brexit. Following the referendum, activity in some dealer-intermediated markets, including corporate and UK government bond markets, had been subdued, but orderly. And repo markets had proved resilient.

27. Post-crisis reforms had made dealers, on which some markets rely, more resilient, reducing the probability that market-making losses could lead to their distress or failure. Dealers also appeared to be further adapting their businesses to the post-crisis regulatory regime. There had also been signs of improvement in gilt repo market functioning. In addition, electronically traded markets (such as foreign exchange and equity markets) had been resilient to extremely high volumes of transactions compared to normal levels. In the more recent period of volatility at the end of 2018, pension funds and insurers had acted as net buyers of sterling corporate bonds. As a result, dealers had not had to absorb significant amounts of assets, and bid-ask spreads for investment-grade and high-yield sterling corporate bonds had remained low. Notwithstanding this, new business models meant that liquidity conditions in corporate debt and some sovereign debt markets could change quickly in event of stress.

28. The FPC continued to judge that insurers were sufficiently resilient to be able to support markets in stress. The largest life insurers had an aggregate surplus of capital above their regulatory requirements of £43.6 billion; 62% more than their regulatory requirements. The FPC had published Bank estimates of the sensitivity of aggregate UK life insurer capital surpluses to movements in key market variables impacted in the worst case disorderly Brexit scenario in the November *FSR*. Sharp falls in property and equity prices, like those in the worst case disorderly Brexit scenario, would cause life insurers' aggregate capital positions to deteriorate materially, but they would remain well above regulatory requirements.

29. In addition to the resilience of private sector providers of market-based finance, the UK authorities had engaged in extensive contingency planning. The measures they had put in place would provide further support to institutional resilience and market functioning.

Bank liquidity

30. The FPC continued to monitor the resilience of banks' funding and liquidity positions. The resilience of major UK banks' funding structures had improved significantly since the financial crisis. For example, major UK banks' short-term wholesale funding, excluding repo, as a proportion of total funding, had fallen to 3.8% from 15.2% in 2007. At a group level, major UK banks held more than £1 trillion of high-quality liquid assets. On a consistent basis, this was more than four times the level they had held before the financial crisis. This meant they more than met the Liquidity Coverage Ratio

(LCR) standard, which measured a bank's liquid assets as a proportion of the net outflows it might face over a severe 30-day stress. In aggregate, major UK banking groups had 40% more liquid assets than needed to meet the international standard. Their holdings of liquid assets were sufficient to withstand more than three months of stress in wholesale funding markets.

31. As a result of supervisory actions and their prudential risk management, major UK banks had aligned the currency of their liquid assets with that of their maturing wholesale funding. They could now meet their maturing obligations for many months without access to foreign exchange markets. In addition, UK banks had pre-positioned collateral at the Bank of England such that they could access over £300 billion of additional funding through the Bank's regular facilities.

32. The Committee welcomed the Bank's decision to offer indexed long-term repo operations on a weekly basis in the weeks surrounding the planned EU withdrawal date. It also welcomed the initiation of a new weekly Liquidity Facility in Euros (LiFE), under which the Bank would offer to lend euros, alongside the existing weekly dollar facility. These operations would provide banks and building societies with an opportunity to obtain liquidity against the full range of collateral eligible in the Bank's Sterling Monetary Framework. Like the dollar facility, the euro operations would be supported by the activation of a swap line between the Bank of England and the relevant central bank, in this case the European Central Bank. These swap lines were part of the existing international network of standing swap lines which provided an important tool for central banks in pursuit of their financial stability objectives.

33. **The FPC judged that significant market volatility was to be expected in a disorderly Brexit. However, markets had proved able to function effectively through volatile periods, and the strength of the core financial system, including banks, dealers and insurance companies, would support the functioning of markets on which the economy relied.**

Other risks to financial stability

34. The Committee reviewed other financial system and economic developments to inform its overall judgement on the current risks faced by the UK financial system. The Committee noted that it was important to distinguish between the realisation of previously identified risks and changes in the underlying vulnerabilities.

Recent signs of risks crystallising

35. The Committee began by considering recent developments in global and domestic economies with a view to assessing the extent to which previously identified risks had begun to crystallise. In

doing so, it focused on three developments. First, the synchronised slowing in both the global and domestic economies, which could expose existing debt vulnerabilities. Second, the tightening in global financial conditions in late 2018, which had illustrated the potential for a rapid change in global risk appetite. Third, the continued signs of reduced demand for UK assets relative to international peers, consistent with Brexit-related uncertainty.

Synchronised slowing in global growth

36. Following strong growth in 2017, the global economy had grown less quickly in 2018. Reflecting the past tightening in global financial conditions, as well as the initial impact of trade tensions on business sentiment, quarterly UK-weighted world GDP growth was estimated to be 0.4% in 2018 Q4, 0.2 percentage points lower than the 2018 H1 average. The Monetary Policy Committee's (MPC's) February *Inflation Report* projections were for global growth to dip below trend in coming quarters, with a broad-based synchronised softening across all regions, before rising to around potential rates.

37. The flash estimate of euro area GDP had indicated that growth remained subdued in 2018 Q4, at 0.2%. Some of the euro area weakness had been concentrated in Italy, which had entered a technical recession. After strong growth during much of 2018, US GDP growth was expected to have slowed to 0.5% in the last quarter. Non-farm payrolls had continued to increase robustly in January, however. Headline GDP growth in China in 2018 Q4 had been reported at 6.4% on a year earlier, down from 6.5% in 2018 Q3. Trade flows had dropped off markedly, which had had repercussions for export growth in other economies, including the euro area, emphasising continuing high levels of connectedness in the global economy.

Tightening in global financial conditions in late 2018

38. There had been significant volatility in global financial conditions since the Committee had last met in November. Prices of risky assets in advanced economies had fallen sharply in the latter part of 2018 reflecting greater uncertainty about the outlook for global growth and heightened policy uncertainty globally. Stock market indices had fallen sharply in December, with the S&P 500 index 10% lower on the month. There had also been increases in the VIX and in spreads on investment grade and high yield bonds. Primary bond market activity had slowed globally in 2018 Q4, with bond issuance by financial and non-financial companies down 14% relative to a year earlier.

39. Financial conditions had eased again in early 2019, however, with most global risky asset prices reversing their earlier falls and risk-free rates decreasing. This had been driven in the main by expectations of more accommodative monetary policy by the US Federal Open Market Committee. Market participants expected two fewer increases in the Federal Funds rate over the course of 2019

than had been the case at the time of the November *FSR*. Asset prices had also been supported by the easing in trade tensions between the US and China.

Slowing economic activity domestically

40. In the United Kingdom, the slowing global economy and Brexit-related uncertainty had weighed on investment, consumer confidence and the housing market. Quarterly UK GDP growth had slowed to 0.2% in 2018 Q4. In its February *Inflation Report,* the MPC had revised down its GDP growth projections for the next year by 0.4pp to 1.3%.

41. Business investment had been weak in the UK since the referendum and had declined by a further 1.4% in 2018 Q4. Cumulative growth in business investment since the referendum had been 21 percentage points lower than the MPC's final pre-referendum forecast. It was likely that investment was being affected by Brexit uncertainty, which had been listed as one of the three biggest sources of uncertainty by 54% of businesses responding to the Bank's 2018 Q4 *Decision Maker Survey*.

42. The GfK measure of consumer confidence had declined further in January, dropping to its lowest level since July 2013. In this survey, households' expectations about their own financial situation had fallen to the lowest level since July 2016.

43. Housing market activity had remained broadly stable since the November *FSR*, but the latest RICS survey had suggested that surveyors' expectations of property sales were at the lowest level since the survey began in 1998. Consistent with that, lenders in the 2018 Q4 *Credit Conditions Survey* had reported a widespread fall in mortgage demand. Annual house price growth had slowed further to 2.7% in Q4 and surveyors continued to expect a fall in house prices. The UK real estate investment trust (REIT) index – a forward-looking indicator of CRE prices – had fallen through December, before recovering since. There had been some outflows from property funds since November. The Financial Conduct Authority (FCA) briefed the Committee on its contingency plans for the event that these funds experience sudden and severe redemptions.

Discounts on UK assets

44. Since the June 2016 EU referendum, some UK assets had traded at a discount relative to international comparators. Since the November *FSR* – a period of intensifying Brexit uncertainty – the sterling exchange rate had appreciated by 0.9% and, for some other assets, the size of the discount relative to international comparators had remained broadly unchanged, with prices tracking shifts in global risk sentiment.

45. Since the November *FSR*, movements in sterling investment-grade corporate bond spreads had largely mirrored those of USD and EUR spreads. Spreads had risen sharply towards the end of 2018, before recovering in January.

46. Estimates of UK equity risk premia had increased following the EU referendum in 2016, particularly for an index of UK-focused companies. This contrasted with falls in equity risk premia for the S&P 500 index and Euro Stoxx index over that period. Since November, the gap between UK-focused equities and international peers had remained broadly constant, with the UK equity risk premium closely tracking movements in global equity markets. Similar dynamics had been observed in estimates of equity risk premia for domestically-focused UK banks.

47. In contrast, the size of the discount on some other UK assets had increased further since November.

48. Spreads on UK banks' additional Tier 1 and holding company debt had widened sharply in late 2018, particularly for euro rather than dollar denominated debt. While spreads had since come down, the gap between UK banks' debt and their European peers was now wider than at the time of the November *FSR*. UK banks had prepared for these developments and had not needed to issue in unsecured term funding markets in 2019 Q1. The increase in UK bank funding costs had not translated into tighter overall credit supply conditions facing real economy borrowers.

49. Sterling high yield bonds had also underperformed relative to international peers: at the time of the Committee's meeting, sterling high-yield spreads were 55 basis points above the time of the November *FSR*; meanwhile, USD and EUR spreads had declined by 6 and 17 basis points respectively.

50. Any changes in investor appetite for UK assets would be particularly important in markets where foreign investors had a large presence, such as the leveraged loan and UK CRE markets. In the UK CRE market foreign investors accounted for around 50% of transactions in 2018, and around 70% of London transactions. CRE activity had slowed somewhat at the end of 2018, but the share of foreign investment had remained stable. In the leveraged lending market, 94% of total gross issuance by UK non-financial companies had been syndicated abroad in 2018. Combined, these CRE and leveraged lending transactions had totalled as much as £37 billion in the year to 2018 Q3, equivalent to around 60% of the size of the cumulative current account deficit over that period.

51. **Reviewing developments in UK asset markets, the Committee agreed that they represented the partial realisation of some risks that had been previously identified and captured in earlier stress tests. They did not contain news about the underlying vulnerabilities in UK asset markets.**

Changes in the level of underlying vulnerabilities

52. The Committee next considered whether any developments since its November 2018 meeting affected the scale of underlying vulnerabilities in the UK or globally. This included measures of indebtedness in the household, corporate and public sectors, measures of external imbalances, and measures of valuation pressures in real and financial asset markets.

Domestic vulnerabilities

53. Total UK private non-financial sector credit growth (excluding student loans) had remained modest and slowed to 3.1% in the year to 2018 Q3, down 0.5 percentage points on the quarter. The growth rate of total credit was now marginally below that of nominal GDP. The UK's credit-to-GDP gap, which measured the difference between the ratio of credit to GDP and a simple statistical estimate of its long-term trend, remained significantly negative, at -12 percentage points, unchanged on the quarter. This suggested a very low degree of underlying vulnerability. However, as the FPC had previously noted, the long-term trend on which it was based currently gave undue weight to the rapid build-up in credit prior to the global financial crisis, which had proven to be unsustainable. The Committee had therefore put more weight on the growth rate of credit relative to incomes in recent years.

54. Annual mortgage credit growth had remained flat on the quarter at 3.3%, similar to the growth rate of household income. Weak demand for mortgages had restrained the growth of mortgage debt despite credit supply conditions remaining accommodative in the mortgage market. Mortgage price and non-price terms had loosened in recent years as competition had intensified, in part reflecting structural changes associated with the introduction of ring-fenced banking. The share of lending with loan-to-income (LTI) ratios at or above 4 had ticked down slightly in 2018 Q4, but remained high relative to the past at 29%. Within that, the proportion of loans with an LTI at or above 4.5 remained below the FPC's 15% flow limit, at 9.2% down from 9.7% in 2018 Q3. There had been an increase in the length of mortgage terms, and in consequence, an increase in the age at which new borrowers would have paid down their mortgages. The proportion of new mortgage lending at loan-to-value (LTV) ratios at or above 90% had remained at its post-crisis high of 18.6% in 2018 Q4.

55. Consumer credit had continued to slow, with growth of 6.6% in the year to December 2018, down from 7.9% three months earlier. In part, this slowing probably reflected muted credit demand in light of a weaker economic outlook. If recent monthly flows were to continue, the annual growth rate would continue to fall to around 5%. Banks had reported a tightening in consumer credit availability in the 2018 Q4 *Credit Conditions Survey* for the eighth consecutive quarter.

56. Household debt (excluding student loans) remained flat at 126% of household incomes. The share of households with mortgage debt service ratios (DSRs) of at least 40% (the percentage beyond which historical evidence suggested that households were materially more likely to experience repayment difficulties) remained low, at 1% in 2018 H2, reflecting the low interest rate environment. With all other factors held equal, mortgage interest rates would need to increase by almost 300 basis points for the share to reach its 1997-2006 average of 1.8%.

57. Reflecting weak investment growth and tighter financial conditions, corporate credit growth had slowed to 4.8% in the year to 2018 Q3, down 0.8 percentage points on the quarter. This had been driven by a reduction in the growth of market-based debt finance. In the Bank's 2018 Q4 *Credit Conditions Survey,* banks reported that large and small businesses had reduced credit demand over the past two quarters. Moreover, a range of Agency and Supervisory intelligence suggested that, while stock building ahead of Brexit had increased, firms appeared to be financing that from cash buffers rather than credit. The corporate debt to earnings ratio had ticked down slightly to 312% in 2018 Q3.

Global vulnerabilities

58. Vulnerabilities associated with the US corporate sector had not changed significantly on the quarter and remained material. In aggregate terms, corporate debt had been 262% of earnings in 2018 Q3, relative to 265% in 2018 Q2, close to the 2007 level. Global issuance of leveraged loans remained at historically high levels: in the 12 months to December 2018, gross issuance totalled £540 billion. There remained concerns about deteriorating underwriting standards in this market: more than a quarter of new loans had leverage multiples above six times earnings, which had been the threshold set by the US authorities in their 2013 guidance regarding sound practices for leveraged finance activities. The US authorities had recently clarified that they did not take enforcement actions based on supervisory guidance. Moreover, the multiples included add-backs that assumed potential future earnings improvements were realised. These add-backs were uncertain, so may have led to EBITDA being overstated and, therefore, leverage understated. There had also been robust debt issuance and weaker underwriting standards in private debt markets, which provided funding to smaller, sub-investment grade firms. Overall, UK banks' exposures to the United States accounted for 285% of common equity Tier 1 (CET1).

59. Corporate debt levels in some euro area countries also remained elevated, albeit little changed from November. At 450% of earnings, headline debt levels in the French corporate sector were significantly higher than pre-crisis levels. The French authorities had introduced macroprudential measures to address the risks associated with this increased indebtedness, including raising the countercyclical capital buffer (CCyB) in June and setting limits on the amount of

lending that large French banks could provide to highly-indebted French companies. UK banks' exposures to France accounted for 73% of their CET1 capital.

60. One prominent vulnerability in the euro area remained the sustainability of Italian government debt. At over 130% of GDP, Italy's public debt was the second highest in the euro area (after Greece). Italian bond yields had fallen by 85 basis points since mid-November after the new government had scaled back its 2019 fiscal package following discussions with the European Commission. While this had eased the expected burden of debt repayment, its effect on the possible future path of debt relative to GDP had been offset by the weaker macroeconomic outlook. The Italian economy had entered recession in Q4.

61. About a quarter of Italian government debt was held by Italian banks excluding their insurance arms, highlighting the continuing potential interlinkages between sovereign risk and bank risk in the financial system. Italian bank equity prices were around 5% higher than they had been in mid-November 2018, and CDS spreads on Italian bank debt had also fallen relative to their November 2018 level. Although direct UK banking exposures to Italy accounted for only around 10% of their CET1 capital, financial strains could spread across the euro area more widely. UK bank exposures to the euro area as a whole were 243% of their CET1 capital.

62. In China, the slowdown in credit growth and economic activity had continued, but financial vulnerabilities remained pronounced. Annual growth in total social financing fell to 9.8% in December, with credit provided by non-banks slowing more sharply to 4.1% in December. To some extent, this was likely to reflect Chinese authorities' actions to de-risk the financial system. But debt levels in China remained highly elevated at 223% of GDP and policymakers faced a trade-off between offsetting any trade-related economic headwinds and managing financial risks. Corporate bond default rates had picked up, but from a very low base.

63. Although financial conditions in non-China emerging markets had eased in early 2019 and there had been renewed capital inflows, emerging markets remained vulnerable to a shift in expectations regarding the stance of US monetary policy, particularly those with large current account deficits and high levels of government or corporate debt denominated in US dollars.

64. There remained vulnerabilities in global asset valuations now that most global asset prices had reversed their late-2018 falls. Measures of implied volatility had fallen, with the VIX index of implied US equity market volatility reaching 14.9 in February, below its historical average, and the MOVE index of implied US Treasury market volatility close to an all-time low. US dollar corporate bond spreads had also narrowed significantly since the beginning of the year. Indices of spreads on US investment grade and high-yield bonds had fallen by 27 and 121 basis points respectively, to their

43rd and 31st historical percentiles. And following declines of around 10 basis points since the beginning of the year, estimates of term premia on US Treasuries had returned to near all-time lows.

65. These valuations appeared to rest on a relatively benign view of the potential for the global economy to continue to expand without generating inflation. This was against the backdrop of a US economy that was operating at near full employment and running an expansionary fiscal policy. Moreover, valuations appeared inconsistent with the degree of uncertainty about a range of economic policies in the global economy. This raised the risk of appreciable future increases in both the level and volatility of market interest rates. As experience from the second half of 2018 had highlighted, a substantial snapback in world interest rates would pose a significant risk to asset prices, economic activity, and hence financial stability.

66. **The Committee reviewed these developments and concluded that the underlying vulnerabilities in the domestic and global economies had not, on balance, changed since the November *FSR*.**

The UK CCyB rate decision

67. The FPC reviewed developments in the overall risk environment on the quarter and considered the appropriate setting of the UK CCyB rate. The prevailing UK CCyB rate of 1% had first been set in November 2017. Given the normal twelve month implementation period, this rate had taken effect from 28 November 2018.

68. In order to assess the overall risk environment – and its implications for the setting of the UK CCyB rate – the FPC had distinguished between the level of underlying vulnerabilities, and hence the scale of the potential downturn the UK economy could face in a stress, and near-term indications that some previously identified risks had been partially realised.

69. Given the FPC's judgement that there had been little news in underlying domestic and global vulnerabilities on the quarter, the results of the 2018 stress test – which the Committee had assessed in November – remained a comprehensive test of the resilience of the UK banking system and of the adequacy of the 1% UK CCyB rate. The results of this test had demonstrated resilience to deep simultaneous recessions in the UK and global economies that were more severe than the global financial crisis, combined with large falls in asset prices and a separate stress of misconduct costs. As the Committee had reported earlier, the UK economic scenario in the 2018 stress test of major UK banks was also sufficiently severe to encompass the outcomes based on worst case assumptions about the challenges the UK economy could face in the event of a worst case disorderly Brexit.

Given this, the Committee continued to judge that the UK banking system had a sufficient buffer of capital to serve UK households and businesses through a worst case disorderly Brexit.

70. **In light of this assessment of unchanged underlying vulnerabilities and given the resilience of the UK banking system, the FPC decided to maintain the UK CCyB rate at 1% in 2019 Q1.**

71. As the Committee had reported earlier, it judged that some previously identified risks had been partially realised since the November *FSR*, both in the UK and globally. In the event of a disorderly Brexit, the FPC would be prepared to cut the UK CCyB rate, as it did in July 2016. This would enable banks to use the released buffer to absorb up to £11 billion of losses. Relative to the counterfactual where these losses might lead banks to restrict lending to ensure they could meet a 1% UK CCyB rate, the release could preserve their capacity to lend to UK households and businesses by around £250 billion. This compared to around £75 billion of net lending in 2018, so the released capital could sustain this level of net lending for several years. The release of the UK CCyB rate would be consistent with the FPC's firm intention that all elements of banks' regulatory capital buffers could be used to absorb losses, reducing banks' incentives to cut lending to the real economy in a stress.

72. In the absence of economic stress, the FPC would remain vigilant to developments in the level of underlying vulnerabilities, particularly in the domestic credit environment. There were signs that lender risk appetite was strong and credit supply conditions were accommodative. This had not translated into materially greater riskiness of the financial environment because demand for credit had, at the same time, been muted. This could reflect Brexit-related uncertainty. Were that uncertainty to fade, credit demand could rebound significantly and lead to an increase in the riskiness of banks' exposures. Given current accommodative lending conditions, that could require a timely policy response to ensure resilience.

73. Consequently, the Committee confirmed that it stood ready to move the UK CCyB rate in either direction as economic conditions and the overall risk environment evolved.

Annual cyclical scenario stress test

74. The Committee discussed the key elements of the Bank's ACS stress test. The Bank would publish the *Key Elements* of the test alongside the Record of the FPC's meeting. The results of this year's test would be published in December 2019 and would inform policy responses to ensure that

the UK banking system had sufficient capital to absorb losses and maintain the supply of credit to the real economy, even in a severe stress.

75. In the ACS, the size of the shocks to different sectors of the UK economy and to other economies were adjusted each year to deliver a similar stressed outcome unless the assessment of financial vulnerabilities warranted a change to that outcome. In this way, the stress test scenario was explicitly countercyclical.

76. At its February meeting, the FPC discussed the scenario for the 2019 ACS in light of its view of the current risk environment.

Domestic scenario

77. The FPC agreed that, in line with its overall risk assessment, it was appropriate for the aggregate severity of the domestic downturn to stay broadly the same as in the 2018 test. However, the FPC observed that the start-to-trough falls in some variables might change even if the assessment of underlying macrofinancial vulnerabilities remained unchanged. This reflected changes in the position that the economy was starting from. For example:

- UK equity prices had declined by around 10% since the start of the 2018 ACS, becoming less stretched. As a result, equity prices would start from a lower level, and all else equal, the start-to-trough fall in UK equity prices would be slightly smaller than in the 2018 ACS.

- UK CRE yields had fallen since the start of the 2018 ACS, meaning valuations had become a bit more stretched. This implied a marginally larger start-to-trough fall than was the case in the 2018 ACS.

78. The test scenario continued to reflect the UK's underlying vulnerability to a reduction in foreign investor appetite. In the scenario, a UK-specific risk premium shock drove sharp falls in UK asset prices and a 30% depreciation in sterling, to trough at £0.91 against the US dollar. Consistent with the aim of the scenario to reflect low probability — 'tail risk' — events, the sharp increase in inflation that resulted from the deprecation was assumed to affect inflation expectations and wage growth, creating a challenging trade-off between growth and inflation. This meant that, to return inflation to the 2% target, Bank Rate rose in the scenario to 4%.

79. The FPC had separately judged the system to be resilient to a worst case disorderly Brexit. In a worst case disorderly Brexit, supply would contract more than in the ACS, generating a larger fall in GDP but a smaller rise in unemployment. Overall, the FPC judged the UK economic scenario in the 2019 ACS and the worst case disorderly Brexit scenarios to be of similar severeity.

Global downturn

80. The 2018 ACS had been calibrated to reflect an elevated risk environment in China and Hong Kong, a material risk environment in the US, and a standard risk environment in Europe.

81. The FPC discussed whether there had been any developments in the US and the euro area since the 2018 ACS had been calibrated that warranted a change in the severity of the assumed downturn. In October 2018, the FPC had observed that leverage in the US corporate sector had continued to increase, underwriting standards had loosened further and fiscal space in the US was more constrained. And in June 2018, the FPC had observed rising euro area vulnerabilities created by high public debt levels and interlinkages between banks and sovereigns in a currency union.

82. The Committee also discussed whether changes in China's economic outlook warranted a change in the severity of the global downturn. The FPC agreed that recent changes had not affected the underlying vulnerability to a future shock. But a high level of whole economy debt could point to a more difficult recovery from a stress, rendering any downturn in China more prolonged.

83. On balance, the Committee agreed it was appropriate to slightly increase the severity of the global downturn. In particular, the ACS should assume slightly deeper peak-to-trough falls in US and euro area GDP. And it should assume a slower recovery in China, which would affect the amount of total losses banks were expected to make over the 5 year test horizon.

84. **Reflecting the FPC's assessment that the underlying vulnerabilities were broadly unchanged on the year, overall, the stress test scenario was very close to that in the 2018 ACS. As such, it remained tougher than the financial crisis. The FPC would use the test to assess bank balance sheets, and the resilience of the financial system. Details of the scenario were set out in the 'Key Elements' document which would be published alongside this Record.**

Coverage

85. In March 2018, the FPC had judged that given their significance to the UK economy, it was appropriate to include the ring-fenced bank (RFB) subgroups of existing stress-test participants as separate entities in future stress tests.

86. The FPC observed that RFBs had now become operational, and would cover the vast majority of UK banks' domestic activities. Including them as separate entities in the test would allow both the Bank and the market to understand RFB subgroups' capital position.

87. The Committee also noted that a number of systemically important activities were performed by non-ring-fenced banks. The stress test would hence continue to also cover the consolidated groups of existing participants.

88. In its 2015 approach document, the Bank had said that it would give new participants 12 months' notice before changing its approach to participation in the stress test.

89. **In light of this, the FPC agreed that from 2020, the ACS should assess the ring-fenced subgroups of existing ACS participant banks on a stand-alone basis.**

90. The FPC also noted that the Prudential Regulation Committee (PRC) had agreed that unless there was a material change to the group's balance sheet by its year-end at end-September 2019, CYBG would take part in the 2020 stress test for the first time.

Cyber resilience

91. In June 2017, the FPC had set out the elements of the framework of regulation to strengthen the resilience of the UK financial system to cyber risk: (i) clear baseline expectations for firms' resilience that reflected the importance of firms and the services they provide for the financial system; (ii) regular testing by firms and supervisors, to ensure that resilience kept pace with the evolving nature of the risk; (iii) identification of firms that were outside the financial regulatory perimeter, but which might be important for regulated firms; and (iv) clear and tested arrangements to respond to cyber incidents when they occurred.

92. For cyber risk, the FPC judged that resilience captured both the ability to withstand cyber incidents and the ability to restore functioning after a cyber incident. So, in June 2018, the FPC had agreed that as part of establishing clear baseline expectations, it would set tolerances for how quickly critical financial companies must be able to restore vital financial services following a severe but plausible cyber incident. Consistent with the FPC's remit, these would be calibrated to ensure financial stability and avoid material economic harm. As such, the tolerances would not imply zero tolerance for disruption.

93. As set out in the June 2018 FSR, the Bank would use regular cyber stress tests to test firms' ability to meet these 'impact tolerances' in severe but plausible scenarios. It would run an exploratory pilot of the approach to stress testing in 2019, focussed on firms' ability to restore payment services.

94. The Committee discussed the scenario to be used, as well as the impact tolerance it would specify, in the exploratory pilot in 2019.

Cyber stress scenario

95. The scenarios for cyber stress tests would be set by the FPC, drawing on the independent judgement of experts for calibration of what would constitute a severe but plausible incident from which firms would need to recover.

96. The FPC discussed whether the pilot stress test scenario should assume that some of firms' own IT systems that supported payments became temporarily unavailable following a cyber incident, or whether it should assume a corruption of the firm's data.

97. On the one hand, scenarios in which data were corrupted were more challenging, and running such a scenario could therefore provide valuable insights. On the other hand, running an availability scenario could provide more insights into how the FPC could refine its approach to cyber stress tests and could also be challenging, particularly if it assumed that there was prolonged uncertainty about how the issue could be resolved.

98. On balance, the FPC agreed that for the purpose of the exploratory pilot exercise, it was appropriate to focus on a hypothetical stress scenario that assumed firms' systems supporting their payments were unavailable and there was uncertainty about whether and how the issue could be resolved. The Committee also emphasised the importance that the pilot be used to explore interdependencies between parts of the system.

99. The FPC was inclined to explore in a future exercise a scenario in which data were corrupted, building on any lessons learned during the 2019 exploratory pilot exercise.

Impact tolerance

100. The FPC discussed the appropriate impact tolerance for the speed with which payments could be restored in the assumed scenario.

101. Historical case studies suggested that financial stability was unlikely to be at risk if a disruption was addressed within the same day and all critical payments were processed by the end of the value date. But beyond that, the point at which a cyber-related disruption would start to pose risks to financial stability would depend on a number of case-specific factors.

102. Expecting the financial system to complete payments by the end of the value date would be consistent with existing international standards for FMIs, which required safe resumption of critical operations within two hours of a cyber disruption and to enable an FMI to complete settlement by the end of the day the disruption occurred.

103. The Committee agreed that it would therefore be prudent to expect the financial system to complete critical payments by the end of the value date. However, the FPC had previously recognised that firms would not be able to meet its ‘impact tolerance’ in the most extreme circumstances. There would hence be merit in gathering evidence on: (a) what factors might materially affect firms’ ability to meet that impact tolerance and whether doing so might have unintended consequences and (b) what would happen if contingency measures aimed at restoring services within the FPC’s impact tolerance were unsuccessful. This information would allow the Committee to explore the financial stability implications of longer disruptions to payment services and provide valuable information for finalising the impact tolerances to be used in future cyber stress tests that followed the pilot.

Next steps

104. The pilot exercise would be launched in the summer. Ahead of that, the Bank would engage with firms to arrange appropriate and proportionate coverage of the pilot exercise. The Committee noted that it would not, given the sensitivities, disclose precise details of the test or of the results from the pilot exercise. However, it expected to publish thematic insights yielded by the pilot exercise that would determine the finalisation of its impact tolerances and the appropriate choice of scenarios in future tests.

Other

Libor

105. In June 2018, the FPC had agreed it would continue to monitor progress and report regularly on developments regarding the risks associated with reliance on Libor. There had been a significant increase in the use of SONIA in bond markets; as at end-January there had been around £14 billion of SONIA-linked floating rate notes issued, up from around £6 billion by end-October. In spite of this progress, important challenges for the market and authorities remained. The share of the notional cleared sterling swap market referencing SONIA (the preferred risk free rate) had reached 19% at the end of 2018, only slightly above its level in October 2018. The FPC would continue to monitor progress on this.

The following members of the Committee were present:

Mark Carney, Chair

Andrew Bailey

Alex Brazier

Ben Broadbent

Jon Cunliffe

Anil Kashyap

Donald Kohn

Dave Ramsden

Richard Sharp

Elisabeth Stheeman

Martin Taylor

Sam Woods

Tom Scholar attended as the Treasury representative in a non-voting capacity.

ANNEX: PREVIOUS FPC POLICY DECISIONS

Outstanding FPC Recommendations and Directions

The FPC has no Recommendations or Directions that have not already been implemented.

Other FPC policy decisions which remain in place

The table below sets out previous FPC decisions, which remain in force, on the setting of its policy tools. The calibration of these tools is kept under review.

Topic	Calibration
Countercyclical capital buffer rate	At its meeting in February 2019, the FPC set the UK CCyB rate at 1%, unchanged from November. The UK has also reciprocated a number of foreign CCyB decisions — for more details see the Bank of England website.[1] Under PRA rules, foreign CCyB rates applying from 2016 onwards will be automatically reciprocated up to 2.5%.
Mortgage loan to income ratios	In June 2014, the FPC made the following Recommendation (14/Q2/2): The Prudential Regulation Authority (PRA) and the Financial Conduct Authority (FCA) should ensure that mortgage lenders do not extend more than 15% of their total number of new residential mortgages at loan to income ratios at or greater than 4.5. This Recommendation applies to all lenders which extend residential mortgage lending in excess of £100 million per annum. The Recommendation should be implemented as soon as is practicable. The PRA and the FCA have published their approaches to implementing this Recommendation: the PRA has issued a policy statement, including rules,[2] and the FCA has issued general guidance.[3]
Mortgage affordability	At its meeting in June 2017, the FPC replaced its June 2014 mortgage affordability Recommendation to reference mortgage contract reversion rates: When assessing affordability, mortgage lenders should apply an interest rate stress test that assesses whether borrowers could still afford their mortgages if, at any point over the first five years of the loan, their mortgage rate were to be 3 percentage points higher than the reversion rate specified in the mortgage contract at the time of origination (or, if the mortgage contract does not specify a reversion rate, 3 percentage points higher than the product rate at origination). This Recommendation is intended to be read together with the FCA requirements around considering the effect of future interest rate rises as set out in MCOB 11.6.18(2). This Recommendation applies to all lenders which extend residential mortgage lending in excess of £100 million per annum. At its meeting in September 2017, the FPC confirmed that the affordability Recommendation did not apply to any remortgaging where there is no increase in the amount of borrowing, whether done by the same or a different lender.

[1] https://www.bankofengland.co.uk/financial-stability#ccyb
[2] https://www.bankofengland.co.uk/prudential-regulation/publication/2014/implementing-the-fpcs-recommendation-on-loan-to-income-ratios-in-mortgage-lending
[3] https://www.fca.org.uk/publications/finalised-guidance/fg17-2-fpc-recommendation-loan-income-ratios-mortgage-lending