Financial Policy Summary and Record of the Financial Policy Committee Meeting on 13 December 2019

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This is the record of the Financial Policy Committee meeting held on 13 December 2019.

It is also available on the Internet: https://www.bankofengland.co.uk/financial-stability-report/2019/december-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 13 March 2020 and the Record of that meeting will be published on 23 March.

Financial Policy Summary

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 13 December the FPC reviewed developments since its meeting on 2 October.

2019 annual cyclical scenario stress test

The 2019 annual cyclical scenario stress test (ACS) shows the UK banking system would be resilient to deep simultaneous recessions in the UK and global economies that are more severe overall than the global financial crisis, combined with large falls in asset prices and a separate stress of misconduct costs. It would therefore be able to continue to meet credit demand from UK households and businesses even in the unlikely event of these highly adverse conditions.

- In the 2019 stress-test scenario, world GDP falls by 2.6%, UK GDP falls by 4.7%, Bank Rate rises to 4% and the UK unemployment rate rises to 9.2%.

- Losses on corporate exposures are higher than in previous tests, reflecting some deterioration in asset quality and a more severe global scenario. Despite this and weakness in banks' underlying profitability (which reduces their ability to offset losses with earnings), all seven participating banks and building societies (together 'banks') remain above their hurdle rates.

- The major UK banks' aggregate common equity Tier 1 (CET1) capital ratios after the 2019 stress scenario would still be more than twice their level before the crisis.

- Banks' resilience relies in part on their ability in stress to cut dividend payments, employee variable remuneration, and coupon payments on additional Tier 1 instruments. If banks had not cut their distributions during the stress, in aggregate they would not have met the 2019 ACS hurdle rate. Investors should be aware that banks would make such cuts as necessary if a stress were to materialise.

Major UK banks' capital ratios have remained stable since year-end 2018 (the starting point of the 2019 stress test). At the end of 2019 Q3, their CET1 ratios were over three times higher than at the start of the global financial crisis. Major UK banks also continue to hold sizable liquid asset buffers.

Global developments

The global economy has continued to slow, reflecting in part the broad effects of the trade war between the United States and China. In Hong Kong, rising political tensions have contributed to the sharpest fall in economic activity since the global financial crisis.

The FPC judges that the 2019 stress-test scenario for the global economy was sufficiently severe to encompass economic risks from both a broader trade war and tensions in Hong Kong. Major UK banks were resilient to the stress scenario, and so will be able to continue to lend to UK households and businesses, even if these risks play out further.

The Committee continues to judge that underlying global vulnerabilities remain material, and that there are risks of further deterioration.

- A broadening of the trade war beyond tariff measures to restrictions on technology and capital would further fragment the global economy and slow its rate of potential growth.

- While lower risk-free interest rates will support global growth, monetary authorities have correspondingly less room to respond in the event of further shocks to the global outlook.

- Although overall debt levels in advanced economies are rising no faster than incomes, debt vulnerabilities remain in China and in the US corporate sector. Risks remain in the euro-area banking sector. Flows of capital to emerging markets remain vulnerable to changes in risk sentiment. And political tensions in Hong Kong pose risks due to its position as a major financial centre.

Domestic vulnerabilities and Brexit

In the UK, against a backdrop of Brexit-related uncertainty, growth has slowed and international investor demand for UK assets, notably commercial real estate, has fallen.

The core of the UK financial system — including banks, dealers and insurance companies — is resilient to, and prepared for, the wide range of UK economic and financial shocks that could be associated with a worst-case disorderly Brexit.

- The 2019 stress-test scenario for the UK economy was severe enough to encompass the range of economic shocks that could be associated with a disorderly Brexit. The core UK banking system demonstrated its resilience to — and capacity to keep lending in — that stress scenario.

- Even if a protectionist-driven global slowdown were to spill over to the UK at the same time as a worst-case disorderly Brexit, the FPC judges that the core UK banking system would be strong enough to absorb, rather than amplify, the resulting economic shocks.

Reflecting extensive preparations made by authorities and the private sector, most risks to UK financial stability that could arise from disruption to cross-border financial services in a worst-case disorderly Brexit have been mitigated.

- A range of measures have been put in place by financial services firms and authorities, including in the European Union (EU), to address these risks. Since November 2017, the FPC has regularly published a checklist of actions to avoid disruption to end-users of financial services during Brexit. The FPC updated this checklist at its most recent meeting.

- With over £1 trillion of high-quality liquid assets, major UK banks can meet their maturing obligations without any need to access wholesale funding for many months. They can also withstand an unprecedented loss of access to foreign currency markets. As a further precaution, the Bank is maintaining operations to lend in all major currencies on a weekly basis.

- The FPC welcomes the recent proposal from the European Commission to extend the temporary equivalence arrangements relating to UK central counterparties (CCPs). It expects confirmation of this and extended recognition of UK CCPs to be provided by end-December.

- Financial stability is not the same as market stability. Significant further volatility and asset price changes would be expected in a disorderly Brexit.

The FPC judges that domestic vulnerabilities (excluding Brexit) that can amplify economic shocks have not changed materially since July and remain at a standard level overall.

- Credit growth remains moderate. Household and corporate debt-servicing burdens are low. Interest rates would need to rise materially in order to return the share of households and companies with high debt-servicing burdens to historical averages.

Irrespective of the particular form of the UK's future relationship with the EU, and consistent with its statutory responsibilities, the FPC will remain committed to the implementation of robust prudential standards in the UK. This will require maintaining a level of resilience that is at least as great as that currently planned, which itself exceeds that required by international baseline standards, as well as maintaining UK authorities' ability to manage UK financial stability risks.

Bank capital requirements

Stepping back from current risks, the FPC, together with the Prudential Regulation Committee and the Bank, has reviewed the structural level and balance of capital requirements for the UK banking system. As a result of that review:

- The FPC is raising the level of the UK countercyclical capital buffer (CCyB) rate that it expects to set in a standard risk environment from in the region of 1% to in the region of 2%.

- Reflecting the additional resilience associated with higher macroprudential buffers, the Prudential Regulation Authority (PRA) will consult in 2020 on proposals to reduce minimum capital requirements in a way that leaves overall loss-absorbing capacity (capital plus bail-inable debt) in the banking system broadly unchanged.

- The Bank, in its capacity as the UK resolution authority, is also clarifying that, in the event of a bank resolution, it expects all debt that is bailed in to be written down or converted to the highest quality of capital, CET1.

Together, these changes will ensure the banking system can support the wider economy through financial and business cycles. They:

- **Increase resilience**. While leaving the overall loss-absorbing capacity for the banking system broadly unaffected, the changes will shift the balance of that capacity towards higher-quality Tier 1 capital.

  The changes will keep capital requirements for major UK banks in line with the benchmark level first set by the FPC in 2015. That benchmark balances the need for banks to be able to keep lending through downturns with the need for them to provide the finance that supports growth over the medium term.

  Unless banks increase their risk appetite significantly, the Committees expect overall capital requirements for major UK banks to remain broadly flat in the coming period.

- **Improve the responsiveness of capital requirements to economic conditions.** By shifting the balance of capital requirements from minimum requirements that should be maintained at all times towards buffers that can be drawn down as needed, these changes will mean banks are more able to absorb losses while maintaining lending to the real economy through the cycle.

  In a stress, the FPC would be prepared to release the CCyB. If the UK CCyB rate was cut from 2% to 0%, this would enable banks to absorb up to £23 billion of losses, which might otherwise lead them to restrict lending. Given losses of that scale, a cut in the UK CCyB rate to 0% could preserve up to £500 billion of banks' capacity to lend to UK households and businesses. This compares with around £100 billion of net lending in the past year.

  A higher setting of the UK countercyclical buffer rate in standard conditions will allow the FPC to pursue a gradual approach to raising the buffer as the risks faced by banks build up. It will also ensure that the buffer is sufficiently large when risks are elevated to create the capacity for banks to lend through subsequent downturns.

- **Enhance resolvability.** The Bank's intention, in resolution, to write down or convert debt to CET1 capital will make resolved banks resilient to further losses, supporting their resolution and minimising the wider economic costs of their failure.

The FPC judges a 2% UK CCyB rate to be appropriate for the current standard risk environment. It is therefore raising the CCyB rate from 1% to 2%. This will take effect in one year.

- Alongside the Prudential Regulation Authority, the FPC will now pilot options for an enduring approach for incorporating the new IFRS 9 accounting standard into bank stress tests and capital requirements. The approaches to be piloted are consistent with the principle that the new accounting standard, which is being phased in until 2023, should not result in an unwarranted *de facto* increase in capital requirements.

The FPC stands ready to move the UK CCyB rate in either direction as economic conditions and the overall risk environment evolve. If a major economic stress were to materialise, the FPC is prepared to cut the UK CCyB rate, as it did in July 2016. In the absence of such a stress, the FPC remains vigilant to developments, particularly in the domestic credit environment.

Review of FPC mortgage market Recommendations

The FPC has reviewed its limit on the amount of new mortgage lending at or above 4.5 times the borrower's income, and its calibration of the test that lenders should use to assess whether a borrower can afford a mortgage.

- Mortgages are households' largest financial liability and lenders' largest loan exposure. In the past, lenders' underwriting standards have loosened sharply and at times shifted from responsible to reckless. This can lead to a significant increase in the number of more highly indebted households.

- In a downturn, these households are more likely to face difficulties and can cut back sharply on spending to make their mortgage payments. This poses risks to the wider economy and ultimately to lenders.

- To insure against this, the FPC has, since June 2014, recommended a limit of 15% on the proportion of new mortgages extended at or above 4.5 times a borrower's income. Building on Financial Conduct Authority (FCA) rules, the FPC has also recommended that lenders assess whether borrowers could meet their mortgage payments if their mortgage interest rate switched to the contractual reversion rate and increased by 3 percentage points.

The FPC's measures prevent a loosening of underwriting standards that would otherwise lead to an increase in the number of more highly indebted households. These benefits substantially outweigh any macroeconomic costs. These standards therefore maintain financial stability and support economic growth through the cycle.

Alternative policies to achieve similar benefits would be much more costly to the wider economy and pose greater risks to the Committee's secondary objective to support the Government's economic policy of strong, sustainable and balanced growth.

- Without the FPC's insurance policies, monetary policy might need to address the financial stability consequences of deteriorating underwriting standards and rapid credit growth. Since monetary policy cannot be targeted at the mortgage market alone, this could generate a potentially severe economic slowdown, far outweighing any macroeconomic costs of the FPC's policies.

- Alternatively, looser underwriting standards would result in an increase in the number of more highly indebted households and greater economic volatility. In those circumstances, to maintain the resilience of banks, the prudential authorities would need to require banks to have materially higher levels of capital, raising the cost of credit.

The FPC therefore judges it is appropriate to maintain both Recommendations. It views them as structural measures intended to remain in place through cycles in the housing market.

These measures have had limited effect to date on mortgage availability. Lenders have maintained their underwriting standards in recent years.

- The FPC's limit on high loan to income mortgage lending has not been reached. Mortgage approvals have remained steady. First-time buyers — who tend to have a greater reliance on borrowing at higher loan to income ratios — now account for a higher share of activity than when the measures were introduced. Thus far, the measures have not constrained a material number of prospective home buyers from purchasing a home.

Financial market liquidity

The recent period of volatility in the US dollar repo market shows how markets can become illiquid in the face of shocks and may not be able to rely on dealers to maintain levels of liquidity. Investors should not assume that markets will remain liquid at all times.

- Post-crisis reforms have contributed to the resilience of, and reduced the interconnections between, dealers that sit at the centre of many financial markets. That, in turn, has reduced the risk of severe and sudden reductions in market liquidity.

- Maintaining those standards is crucial to supporting financial stability. However, these reforms may have affected how some dealers behave in response to shocks, reducing market liquidity in some circumstances.

- The FPC emphasises that firms are able to draw down liquidity buffers and draw on Bank of England facilities to support market functioning through the cycle, as well as in a stress. The 2019 biennial exploratory scenario will be used to illustrate how liquidity buffers can be drawn down, how the Bank of England's facilities can be used, as well as how the PRA's approach to supervision would align with this.

Vulnerabilities in open-ended funds

The FPC judges that the mismatch between redemption terms and the liquidity of some funds' assets means there is an advantage to investors who redeem ahead of others, particularly in a stress. This has the potential to become a systemic risk.

As part of the ongoing review by the Bank and FCA of open-ended funds, the FPC has established that there should be greater consistency between the liquidity of a fund's assets and its redemption terms. In that regard:

- Liquidity of funds' assets should be assessed either as the price discount needed for a quick sale of a representative sample (or vertical slice) of those assets or the time period needed for a sale to avoid a material price discount. In the US, the Securities Exchange Commission (SEC) has recently adopted measures of liquidity based on this concept.

- Redeeming investors should receive a price for their units in the fund that reflects the discount needed to sell the required portion of a fund's assets in the specified redemption notice period.

- Redemption notice periods should reflect the time needed to sell the required portion of a fund's assets without discounts beyond those captured in the price received by redeeming investors.

In addition to enhancing financial stability, these changes should also promote funds' ability to invest in illiquid investments, helping to increase the supply of productive finance to the economy through business and financial cycles, in line with the Committee's secondary objective.

Ensuring that rapidly evolving payment systems support financial stability

Innovation in payments could bring significant benefits for users.

At the same time, the ability to transact safely and smoothly is critical to financial stability and the regulatory framework will need to keep pace with innovation. HM Treasury's current review of the payments landscape is an opportunity to ensure that it can.

The FPC considers that the current framework will need adjustment in order to accommodate innovation in this sector. It has therefore developed the following approach that could usefully inform the Treasury review.

- Regulation of payments should reflect the financial stability risk, rather than the legal form, of payments activities. Firms that are systemically important should be subject to standards of operational and financial resilience that reflect the risks they pose.

- The systemic importance of any single firm should be informed by whether it is part of one or more systemic 'payment chains' — the set of activities necessary for a payment to be made — and whether its failure could disrupt the end-to-end chain. Innovation has made payment chains more complex. New firms, separate to regulated banks and payment systems have become involved in providing payment services and could become systemically important.

- In order to ensure the information necessary for regulation and supervision to be effective, all firms above a certain threshold carrying out the activities that make up the payment chain should provide sufficient information to support the identification of systemically important payments firms as they emerge.

In future, digital tokens known as stablecoins might increasingly be used to make payments. Stablecoin-based payment chains pose additional issues for regulation. In assessing how stablecoins should be treated in the regulatory framework, the FPC has considered them against its principle that the regulation of payments activities should reflect the financial stability risks they pose, rather than their legal form. It judges that:

- Payment chains that use stablecoins should be regulated to standards equivalent to those applied to traditional payment chains. Firms in stablecoin-based systemic payment chains that are critical to their functioning should be regulated accordingly.

- Where stablecoins are used in systemic payment chains as money-like instruments they should meet standards equivalent to those expected of commercial bank money in relation to stability of value, robustness of legal claim and the ability to redeem at par in fiat.

Libra is a high-profile example of a stablecoin proposal. It would have the potential to become systemically important. The regulatory framework that would apply to Libra must be clear and in place in advance of any launch.

The transition away from Libor

Continued reliance of financial markets on Libor poses a risk to financial stability that can only be reduced through a transition to alternative risk-free rates. The intention is that sterling Libor will cease to exist after the end of 2021. No firm should plan otherwise.

Sterling markets show encouraging signs in the development of new products linked to the sterling overnight interbank average (SONIA), and the transition of some legacy products. But important gaps remain so these efforts will need to continue to accelerate in the first half of 2020.

- The UK industry working group for transition has set a target to cease issuance of cash products linked to sterling Libor by 2020 Q3. The FPC endorses this target and encourages all lenders and borrowers to take the necessary steps to prepare themselves to meet this timeline.

- The PRA and FCA have taken steps to ensure that each of the largest regulated firms has nominated a senior manager to be responsible for that firm's transition away from Libor, and the FPC considers this good practice for all firms with material Libor exposures.

- The Bank is currently reviewing its risk management approach to Libor-linked collateral delivered in its Sterling Monetary Framework.

- The FPC has also considered further potential supervisory tools that could be deployed by authorities to encourage the reduction in the stock of legacy Libor contracts to an irreducible minimum ahead of end-2021, and will keep this under review in light of progress made by firms in the transition.

- Compared to progress in sterling Libor markets, transition remains further behind in US dollars, the largest Libor market.

Record of the Financial Policy Committee meeting held on 13 December 2019

1. The Financial Policy Committee (FPC) met on 13 December 2019 to agree its view on the outlook for financial stability and, on the basis of that, its intended policy action. To do so, the FPC discussed the risks faced by the UK financial system and assessed the resilience of the system to those risks. Its aim was to ensure the UK financial system was resilient to, and prepared for, the wide range of risks it could face – so that the system could serve UK households and businesses in bad times as well as good.

2019 annual stress test of the UK banking system

2. The FPC reviewed the results of the 2019 Annual Cyclical Scenario (ACS) stress test. The test covered seven major UK banks and building societies (together, 'banks'), accounting for around 75% of the outstanding stock of Prudential Regulation Authority (PRA) regulated banks' lending to the UK economy. A key purpose of the stress test was to measure the resilience of major UK banks, and the UK banking system as a whole, to hypothetical adverse scenarios such as severe recessions, in order to ensure those institutions had sufficient resilience to withstand the stress and continue to meet credit demand from UK households and businesses.

3. The scenario for the stress test had been set in March 2019. The Committee noted a number of key features of the results that would be set out in the Financial Stability Report (FSR).

4. Major UK banks had entered the 2019 stress test with an aggregate Tier 1 capital ratio of 17.7% and a Common Equity Tier 1 (CET1) ratio of 14.5% of risk-weighted assets, the same ratios as at the beginning of the 2018 stress test. At 5.6%, the Tier 1 leverage ratio at the start of the 2019 test was 0.1 percentage points lower than at the start of last year's test. Banks started the 2019 test with an aggregate CET1 capital ratio that was over three times higher than before the global financial crisis. And, despite facing loss rates consistent with the financial crisis, the major UK banks' aggregate CET1 capital ratio after the 2019 stress scenario would still be more than twice its level before the crisis.

5. In the scenario the losses on corporate exposures were higher than in previous tests which reflected some deterioration in asset quality and a more severe global scenario. Participating banks took £9.7 billion of losses on overall leveraged lending exposures at the low point of the stress, a loss rate of 13% on these exposures. Within that, losses on UK leveraged lending loans and revolving credit facilities were £3.2 billion. The Committee observed that exposures to leveraged lending differed significantly across participants. It was therefore appropriate to capitalise these risks via firm-

specific PRA buffers, rather than the Countercyclical Capital Buffer (CCyB) that applied to all institutions. The PRA would also continue to work with individual firms which had the most material exposures to leveraged lending to ensure that they had in place appropriate processes for assessing risks in general, and 'covenant-lite' loans (where investors did not require borrowers to maintain certain financial ratios) in particular.

6. FPC members observed that the stress test was a useful illustration of what would happen in a real stress, and that it was important for investors to fully understand the risks around Additional Tier 1 (AT1) instruments. Some banks' AT1 capital instruments converted into CET1 capital during the stress.

7. More generally, the Committee underscored that banks' resilience relied in part on their ability in a stress to cut dividend payments, employee variable remuneration and coupon payments on AT1 instruments. If banks had not cut their distributions during the stress, in aggregate they would not have met the 2019 ACS hurdle rate. Investors should be aware that banks would make such cuts as necessary if a stress were to materialise. The Committee therefore requested that the FSR set out the relative impact of reductions in AT1 coupon payments, dividend cuts, and cuts in variable compensation on banks' capital positions in the test results.

8. The FPC agreed that, in line with the response to the Bank's Independent Evaluation Office's assessment of the Bank's stress testing framework, there was merit in publishing more details on significant judgements that underpinned the results of the 2019 ACS. Publishing details on these judgements could help investors and banks understand key sensitivities of the stress test.

9. The Committee observed that even for banks with good stress-testing capabilities it would expect to make adjustments to their submissions, reflecting different assessments of key risks. In aggregate these adjustments had reduced the aggregate CET1 ratio at the low point of capital in the stress by around 100 basis points.

Overall Assessment

10. Despite weakness in their underlying profitability (which reduced their ability to offset losses with earnings), all seven participating banks remained above their relevant risk-weighted capital and leverage hurdle rates in the test and would be able to continue to meet credit demand from UK households and businesses, even in a stress of this severity. In line with the requirements of the test, lending to UK households and businesses expanded by around 3% in total over the five years of the scenario. This reflected an important macroprudential goal of stress testing – namely to help assess whether the banking system as a whole was sufficiently capitalised to be able to meet the projected demand for credit from the real economy in the face of severe adverse shocks.

11. **In the FPC's view, these results showed the UK banking system would be resilient to deep simultaneous recessions in the UK and global economies that were more severe overall than the global financial crisis, combined with large falls in asset prices and a separate stress of misconduct costs. It would therefore be able to continue to meet credit demand from UK households and businesses even in the unlikely event of these highly adverse conditions.**

The resilience of the UK financial system to Brexit

12. Since the referendum on the UK's membership of the European Union (EU) in 2016, the FPC and other authorities had identified financial stability risks that could arise from Brexit and had worked to ensure they were addressed. The FPC had published its regular assessments in its FSRs, and in Statements, Financial Policy Summaries and Records of its meetings.

13. Consistent with the FPC's remit to protect and enhance the resilience of the UK financial system, in considering the risks arising from Brexit, the FPC had focussed on outcomes that would have the greatest potential impact on UK financial stability. In particular, that included the risks that could arise in a worst-case disorderly Brexit.

14. The Committee reviewed developments since its meeting in October. The UK and the EU had agreed a new Withdrawal Agreement. The UK and European Council had subsequently agreed to extend the UK's membership of the EU until 31 January 2020, or earlier should the Withdrawal Agreement be ratified by both the EU and UK before then.

The resilience of the UK financial system to Brexit

15. To assess the resilience of the UK banking system to the range of possible Brexit outcomes, the FPC had considered a disorderly Brexit scenario underpinned by a set of worst-case assumptions. These included the sudden imposition of trade barriers, severe disruption at the border, a sharp increase in the risk premium on UK assets, and negative spillovers to wider UK financial markets. The FPC judged that the 2019 stress-test scenario for the UK economy was severe enough to encompass the range of economic shocks that could be associated with a disorderly Brexit. The core UK banking system had demonstrated its resilience to – and capacity to keep lending in – that stress scenario.

16. Even if a protectionist-driven global slowdown were to spill over to the UK at the same time as a worst-case disorderly Brexit, the FPC judged that the core UK banking system would be strong enough to absorb, rather than amplify, the resulting economic shocks.

17. Post-crisis reforms had made dealers, on which some markets relied, more resilient. This had reduced the risk that market-making losses could lead to their distress or failure. Insurance

companies, whose behaviour could dampen market shocks, had sufficient surplus capital to withstand very sharp falls in property and equity prices.

18. The FPC continued to judge that **the core of the UK financial system, including banks, dealers and insurance companies, was resilient to, and prepared for, the wide range of UK economic and financial shocks that could be associated with a worst-case disorderly Brexit.**

Risk of disruption to cross-border financial services

19. The FPC updated its assessment of progress on its checklist of actions that would mitigate risks of disruption to financial services used by households and businesses to support their economic activity in the event of a no-deal Brexit (see Table 1).

20. Given extensive legislative and other preparations made by UK authorities, UK households and businesses would be able to use existing and new services from EU financial institutions. UK-based financial institutions continued to take steps to ensure the continued flow of services to EU counterparties and clients. It was important that they continued to do so to reduce further the risks of disruption.

21. Firms had also taken steps to facilitate the flow of personal data from EU service providers to the UK. Standard contractual clauses (SCCs) in particular were being utilised to comply with the EU's cross-border personal data transfer rules. The Committee noted that the Advocate General's opinion on the validity of SCCs was expected imminently in the context of an ongoing case before the Court of Justice of the European Union (CJEU) on personal data protection. Were the Advocate General's opinion to call into question the validity of SCCs, the Committee's view was that firms should review the potential disruption to processes and services reliant on EU-to-UK data flows and potential mitigants in the event that the CJEU subsequently took the same view.

22. The FPC welcomed the recent proposal from the European Commission to extend the temporary equivalence arrangements relating to UK Central Counterparties (CCPs). It expected confirmation of this and extended recognition of UK CCPs to be provided by end-December.

23. In the absence of further action by EU authorities, some disruption to cross-border financial services was possible. Although such disruption would primarily affect EU households and businesses, it could increase volatility and spill-back to the UK in ways that could not be fully anticipated or mitigated.

24. The Committee also reviewed other risks that could cause some, albeit less material, disruption to activity if they were not mitigated in the event of a no-deal Brexit (Table 2).

25. **The FPC continued to judge that, reflecting extensive preparations made by authorities and the private sector, most risks to UK financial stability that could arise from disruption to cross-border financial services in a worst-case disorderly Brexit had been mitigated.**

Market volatility

26. As the Committee had underlined previously, financial stability was not the same as market stability. Significant further volatility and asset price changes would be expected in a disorderly Brexit**.** Demand for UK assets could be expected to fall sharply, causing sterling to depreciate and tightening financial conditions for UK households and businesses through adjustments in equity prices and corporate and bank funding costs.

27. With over £1 trillion of high-quality liquid assets, major UK banks could meet their maturing obligations without any need to access wholesale funding for many months. They could also withstand an unprecedented loss of access to foreign currency markets. As a further precaution, the Bank was maintaining operations to lend in all major currencies on a weekly basis.

The future prudential framework

28. **As the FPC had previously stated, irrespective of the particular form of the UK's future relationship with the EU, and consistent with its statutory responsibilities, the FPC would remain committed to the implementation of robust prudential standards in the UK. This would require maintaining a level of resilience that was at least as great as that currently planned, which itself exceeded that required by international baseline standards, as well as maintaining UK authorities' ability to manage UK financial stability risks.**

Outlook for UK financial stability and the UK Countercyclical Capital Buffer (CCyB) decision

Review of capital requirements for the UK banking system

29. In 2015, the Committee had set out its view of the appropriate framework of capital requirements for the UK banking system.

30. It judged the appropriate Tier 1 capital requirement for the UK banking system would be around 11% of risk-weighted assets (RWAs). This assumed that RWAs were properly measured. Accounting for definitional shortcomings in risk measures, it had judged the appropriate level of Tier 1 capital requirements in a standard risk environment to be around 14% (a level that included a 1% UK countercyclical capital buffer in a standard risk environment, which added 0.4 percentage points to overall capital requirements).

31. The FPC's 2015 judgement was based on analysis of the macroeconomic costs and benefits of bank capital.

- The benefits were judged to derive from the reduction in the likelihood and costs of financial crises.
- The costs were judged to arise because loss absorbing capital was a more expensive way for a bank to fund lending than certain other debt liabilities, such as deposits. This would raise the cost of credit to the real economy.

32. In 2015, the FPC had agreed to review its assessment periodically as more information and evidence became available.

33. At its December 2019 meeting the FPC, together with the Prudential Regulation Committee (PRC) and the Bank, had reviewed the structural level and balance of capital requirements for the UK banking system. The FPC concluded that there had been no new information that would warrant any changes to the judgement about the appropriate overall level of capital requirements.

34. The FPC then considered the appropriate balance of capital requirements between minimum requirements and capital buffers.

35. Major UK banks were currently maintaining regulatory capital buffers amounting in aggregate to 4.5% of risk-weighted assets. Empirical estimates suggested that bigger capital buffers, which banks would have been able to draw on in a stress, could have substantially reduced the extent to which lending was cut back in the crisis.

36. The Committee also reviewed evidence regarding the level that the CCyB – the element of banks regulatory capital buffers that it intended to increase as risks built up – might need to reach in an elevated risk environment.

37. Historical evidence suggested that, in 2007, the UK CCyB rate would have needed to be set in the range of 3.5-5% for the UK banking system to have had sufficiently large usable capital buffers to absorb losses without severely restricting lending to the real economy.

38. Based on the experience in the crisis, had the FPC existed it would have needed to act early in order for the buffer, which took effect with a 12 month lag, to reach the appropriate level before the crisis began whilst preserving its stated strategy of moving the CCyB gradually. However, clear signs of building risks would not have been present at the point when the FPC would have needed to begin raising the buffer. A higher setting of the UK CCyB in standard conditions would allow the FPC to pursue a gradual approach to raising the buffer as risks faced by banks built up. Such an approach

would allow banks to build resilience via retained earnings, without incurring the costs of large, unexpected increases in capital requirements. It would also ensure that the buffer was sufficiently large when risks were elevated to create the capacity for banks to lend through subsequent downturns.

39. Reflecting these factors, the Committee saw merit in raising the level of the UK CCyB rate that it expected to set in a standard risk environment from in the region of 1% to in the region of 2%. By shifting the balance of capital requirements from minimum requirements that should be maintained at all times towards buffers that could be drawn down as needed, these changes would mean banks were more able to absorb losses while maintaining lending to the real economy through the cycle. This would make capital requirements more responsive to economic conditions.

40. In a stress, the FPC would be prepared to release the UK CCyB. If the UK CCyB rate was cut from 2% to 0%, this would enable banks to absorb up to £23 billion of losses, which might otherwise lead them to restrict lending. Given losses of that scale, a cut in the UK CCyB rate to 0% could preserve up to £500 billion of banks' capacity to lend to UK households and businesses. This compared with around £100bn of net lending in the past year.

41. The FPC noted that the PRA had undertaken a high-level review of the extent to which any FPC decision to increase the standard risk environment UK CCyB rate should affect the appropriate level of minimum requirements needed to ensure safety and soundness of PRA-regulated firms. Reflecting the additional resilience associated with higher macroprudential buffers, the PRA would consult in 2020 on proposals to reduce minimum capital requirements in a way that would leave overall loss absorbing capacity (capital plus bail-inable debt) in the banking system broadly unchanged.

42. Finally, the Committee noted that the Bank of England, in its capacity as the UK resolution authority, was also clarifying that, in the event of a bank resolution, it expected all debt that was bailed in to be written down or converted to the highest quality of capital, CET1. This would make resolved banks resilient to further losses, supporting their resolution and minimising the wider economic costs of their failure.

43. While leaving overall loss absorbing capacity for the banking system broadly unaffected, the changes would shift the balance of that capacity towards higher-quality Tier 1 capital, increasing resilience. That reflected the fact that buffers were to be met with higher quality capital than minimum requirements. The changes would keep capital requirements for major UK banks in line with the benchmark level first set by the FPC in 2015. That benchmark balanced the need for banks to be able to keep lending through downturns with the need for them to provide the finance that supported growth over the medium term. Unless banks increased their risk appetite significantly, the

Committee expected overall capital requirements for UK banks to remain broadly flat in the coming period.

44. Together, these changes would ensure that the banking system could support the wider economy through financial and business cycles.

International Financial Reporting Standard 9 (IFRS 9) and bank capital requirements

45. The Committee then turned to the interaction of IFRS 9 – the new accounting standard introduced in January 2018 – and the capital framework.

46. Under IFRS 9, banks set aside provisions for expected credit losses on all loans, not just where a loan was past due or had already fallen into default. Banks were therefore expected to set aside provisions to cover credit losses in a more timely way than under IAS 39, in which credit losses were recognised only once there was objective evidence a loss event had actually occurred (known as an 'incurred loss' basis).

47. The change in accounting standard would not change the cumulative losses banks incurred during any given stress episode. The losses would, however, be provided for at an earlier point in the stress. Other things equal, bank capital, as measured under IFRS 9, would fall more sharply in the early part of a stress. Even though capital would subsequently recover more rapidly, the earlier recognition of loss under IFRS 9 would mean, other things equal, that banks needed bigger capital buffers in order to ensure that they did not breach their minimum requirements during a stress.

48. The FPC noted that their judgement about the appropriate level of Tier 1 capital was based on a fundamental economic analysis, which should not be affected by the change in the accounting standard. The Bank had therefore taken action to avoid an unwarranted *de facto* increase in capital requirements that could result from the interaction of IFRS 9 and the annual stress test. Specifically, the Bank had adjusted ACS participant banks' stress test hurdle rates in the 2018 and 2019 ACS to recognise the additional resilience provided by the earlier provisions taken under IFRS 9.

49. Alongside the PRA, the FPC had signalled at the end of 2018 that the Bank would work on a more enduring treatment that did not rely on comparisons with provisions under the old accounting standard. At its latest meeting, it reviewed a conceptual approach to the treatment of the additional provisions banks would make under IFRS 9, whereby these extra provisions would reduce the need for regulatory loss absorbency in resolution.

50. The Committee endorsed this approach as the basis for piloting by the Bank, as would be set out in a box in the FSR. It noted that there was a spectrum of potential design choices for its implementation. These choices included how to determine what proportion of the loss absorbency

that resulted from higher provisions under IFRS 9 was additional; whether minimum regulatory loss absorbency requirements (including the recapitalisation component for resolution) should be adjusted as provisions were made, or before, in anticipation of their being made; and which components of the minimum regulatory loss absorbency requirements should be adjusted.

51. Alongside the PRA, the FPC agreed to pilot options for an enduring approach to incorporating the new IFRS 9 accounting standard into bank stress tests and capital requirements. The approaches to be piloted were consistent with the principle that the new accounting standard, which was being phased in until 2023, should not result in an unwarranted *de facto* increase in capital requirements.

Global outlook

52. The Committee then turned to its conjunctural assessment of the outlook for UK financial stability, and specifically the global risk outlook. This could affect UK financial stability directly through UK banks' exposures to vulnerable economies; indirectly by financial contagion through UK banks' exposures to other affected banks; and through macroeconomic spillovers to the UK economy, that tested bank and borrower resilience.

53. **The global economy had continued to slow since the time of the July FSR, reflecting in part the broad effects of the trade war between the US and China.** A broadening of the trade war beyond tariff measures to restrictions on technology and capital would further fragment the global economy and slow its rate of potential growth. **In Hong Kong, rising political tensions had contributed to the sharpest fall in economic activity since the global financial crisis, with the economy officially entering recession in 2019 Q3.**

54. **As would be set out in the December FSR, the 2019 stress test scenario reflected material vulnerabilities in the global economy. It was sufficiently severe to encompass economic risks from a broader trade war and tensions in Hong Kong. Major UK banks had showed they were resilient to the stress scenario, and so would be able to continue to lend even if these risks played out further.**

55. Members discussed the underlying vulnerabilities in the global economy, which had the potential to amplify any future shock and thereby make future global slowdowns deeper, with knock-on effects for UK financial stability. These vulnerabilities underscored the need for resilience in the UK financial system and would be set out in detail in the FSR. They included: less room for monetary authorities to respond in the event of a further shock to the global outlook; flows of capital to emerging markets; risks in the euro area banking sector; and debt vulnerabilities in China and the US corporate sector.

Financial market liquidity

56. **The FPC reviewed the recent period of volatility in the US dollar repo market, which had shown how markets could become illiquid in the face of shocks and might not be able to rely on dealers to maintain levels of liquidity. Investors should not assume that markets would remain liquid at all times.**

57. Post-crisis reforms had contributed to the resilience of, and reduced the interconnections between, dealers that sat at the centre of many financial markets. For example, interbank lending was down by a third since the pre-crisis period. That, in turn, had reduced the risk of severe and sudden reductions in market liquidity.

58. The FPC judged that maintaining those standards was crucial to supporting financial stability. The resilience of market liquidity would not be improved by lowering the standards to which banks and dealers were held.

59. However, post-crisis reforms might have changed how some dealers behaved in response to shocks and reduced market liquidity in some circumstances.

60. The FPC noted that regulatory and business model refinements were helping market liquidity to adapt to the post-crisis framework. For example, the exclusion of central bank reserves from the leverage ratio in the UK had improved the ability of the banking system to draw on central bank liquidity facilities. The FPC emphasised that dealers were able to draw down liquidity buffers and draw on Bank of England facilities to support market functioning through the cycle, as well as in a stress.

61. **Overall, the Committee continued to judge that global vulnerabilities remained material and there were risks of further deterioration. The scenario for the 2020 ACS stress test, which would be set in March, would reflect this.**

Domestic outlook

62. Since the Committee last met, UK growth had slowed, there had been some tentative signs of tighter corporate credit conditions, international investor demand for UK assets, notably commercial real estate, had fallen, and supply conditions in mortgage markets had stabilised after a prolonged period of easing. As would be outlined in the December FSR, and had been set out in the November Monetary Policy Report, many of these developments reflected Brexit-related uncertainty.

63. The Committee noted that credit growth remained moderate. Growth in total UK private non-financial sector credit (excluding student loans) had slowed to 3.5% in the year to 2019 Q2 from 3.7%

the previous quarter. This was broadly in line with nominal Gross Domestic Product (GDP) growth of 3.7% over the period. The data for the third quarter would be released later in December.

64. The UK's credit-to-GDP gap, which measured the difference between the credit-to-GDP ratio and a simple statistical estimate of its long-term trend, remained significantly negative at -11.4 percentage points in 2019 Q2. This measure suggested a very low degree of underlying vulnerability, but gave undue weight to the rapid build-up in credit prior to the global financial crisis, which had proven to be unsustainable. Members continued to judge that it had therefore been appropriate to put more weight on the growth rate of credit relative to incomes in recent years.

65. The Committee also considered household and corporate debt metrics. The household sector had reduced indebtedness levels since the financial crisis. Household indebtedness had come down since the financial crisis from 144% of income to 121% in 2019 Q2. The proportion of households with mortgage debt service ratios at or above 40% remained low. Mortgage interest rates would need to rise by 200-300 basis points but without any accompanying increase in incomes for the number of households with high debt servicing burdens to return to its historical average.

66. Cash balances in the corporate sector – an important indicator of companies' resilience to shocks – had recovered from post-crisis lows. While the proportion of corporate sector debt owed by listed firms with net debt greater than four times earnings before interest, tax, depreciation and amortisation (EBITDA) was historically high, interest coverage ratios (ICRs) were healthy. The proportion of firms with stretched ICRs – earnings less than 2.5x interest expense – was currently low by historical standards. Global interest rates would need to rise by 50-150 basis points and corporates would need to see no growth in earnings for this share to return to its historical average. In practice, a large proportion of this debt was fixed rate or hedged so this would take time to pass through.

67. The Committee also noted that the current account deficit remained wide at 4.6% of GDP in 2019 Q2. Despite this, the UK's Net International Investment Position had been stable. The current account deficit had been financed by positive gross capital inflows in recent years, although these flows had been significantly smaller than in the pre-crisis period. Inflows into UK commercial real estate and leveraged loans were small as a share of total capital inflows.

68. **Taking into account developments across the domestic credit environment, the FPC judged that underlying vulnerabilities (excluding Brexit) that could amplify economic shocks had not changed materially since July and remained at a standard level overall.**

Conjunctural UK CCyB rate decision

69. Recalling its earlier decision to increase the standard times UK CCyB rate to in the region of 2%, the Committee next discussed whether there was a case for any further adjustments to the UK CCyB rate to reflect the current risk environment.

70. As discussed above, the Committee judged that the underlying level of vulnerabilities (excluding Brexit) in the UK economy remained standard in Q4. Overall credit growth remained in line with nominal GDP and debt service burdens in both the household and corporate sectors were low by historical standards. The FPC's revised CCyB strategy was consistent with setting a UK CCyB rate of 2% in such a risk environment.

71. The Committee also considered the results of the 2019 stress test, which provided a comprehensive assessment of the resilience of the UK banking system. In previous years, the Committee had used the results of its annual stress test as one input into its setting of the UK CCyB rate.

72. As the Committee had noted in the context of the 2019 ACS results, this year's stress test included higher losses on corporate exposures than in previous stress tests. Some of those losses reflected UK leveraged loan exposures, which were only relevant to a subset of participating banks. It was therefore appropriate to capitalise risks related to those portfolios via firm-specific PRA buffers, rather than the CCyB that applied to all institutions.

73. The Committee also noted that, although the structural adjustments to the capital framework discussed earlier would leave overall loss absorbing capacity for the banking system broadly unaffected, they would shift the balance of that capacity towards higher quality Tier 1 capital. This would boost the resilience of the system.

74. Taking these considerations together, the Committee judged that no additional change in the UK CCyB rate was warranted to reflect the current standard risk environment.

75. In view of its earlier decision on the level of the UK CCyB in a standard risk environment, **the FPC decided to increase the UK CCyB rate from 1% to 2% in 2019 Q4. That increase would take effect on 16 December 2020.**

Review of FPC mortgage market Recommendations

76. The Committee turned to discuss its Recommendations relating to the owner-occupier segment of the mortgage market.

77. Historically, the rapid build-up of mortgage debt had been a significant risk to financial and economic stability. Mortgages were households' largest financial liability and lenders' largest loan

exposure. In the past, lenders' underwriting standards had loosened sharply and at times shifted from responsible to reckless. This could lead to a significant increase in the number of more highly indebted households. In an economic downturn, these households were more likely to face difficulties and could cut back sharply on spending to make their mortgage payments. This posed risks to the wider economy and ultimately to lenders.

78. To insure against this the FPC had, since June 2014, recommended a limit of 15% on the proportion of new mortgages extended at or above 4.5 times a borrower's income. Building on Financial Conduct Authority (FCA) rules, the FPC had also recommended that lenders assess whether borrowers could meet their mortgage payments if their mortgage interest rate switched to the contractual reversion rate and increased by 3 percentage points. The Recommendations were designed to prevent a marked loosening in underwriting standards and a significant increase in the number of highly indebted households.

79. The FPC was required to conduct a regular review of these Recommendations. In approaching this review, members emphasised that a key aim of the Recommendations was to reduce risks to the macroeconomy associated with higher household debt, so supporting sustainable growth through financial and economic cycles.

80. **The Committee judged that the measures had prevented a loosening of underwriting standards that would otherwise have led to an increase in the number of more highly indebted households. These benefits substantially outweighed any macroeconomic costs. These standards would maintain financial stability and support economic growth through the cycle.** The latest empirical evidence suggested a strong link between household debt and the size of consumption cuts in a downturn.

81. **The FPC considered alternative policies to achieve similar benefits. Such policies would be much more costly to the wider economy and pose greater risks to the Committee's secondary objective to support the economic policy of the government. As set out in the FSR, without the FPC's insurance policies, monetary policy might need to address the financial stability consequences of deteriorating underwriting standards and rapid credit growth. This could generate a potentially severe economic slowdown, far outweighing any costs of the FPC's policies.**

82. **Alternatively, looser underwriting standards would result in an increase in the number of more highly indebted households and greater economic volatility. In those circumstances, to maintain their resilience, the prudential authorities would need to require banks to have materially higher levels of capital, raising the cost of credit.**

83. **Having reviewed this evidence, the Committee judged that it was appropriate to maintain both Recommendations. It viewed these as structural measures intended to remain in place through cycles in the housing market.**

84. The Committee then discussed the calibration of the affordability test, which assessed whether borrowers could still afford their mortgages if their mortgage rate were 3 percentage points higher than the reversion rate specified in the mortgage contract at origination. With average reversion rates of 4%, this meant households were being assessed against a 7% stressed interest rate in the test. The FPC had previously recommended that lenders use reversion rates in assessing affordability because, according to the mortgage contract, borrowers would revert to this rate unless they were able to refinance. After the crisis, one third of mortgagors were on the standard variable rate.

85. Reversion rates had been relatively static in recent years. While initial mortgage rates had fallen, in part reflecting lower funding costs for banks, reversion rates had remained largely unchanged. As a result, reversion rates had remained around 4%, much higher than Bank Rate at 0.75% and deposit rates of around 1%. This implied a spread above Bank Rate of 3.25 percentage points, compared with a spread of under 2 percentage points in the lead up to the crisis.

86. This spread between initial mortgage rates and reversion rates increased the risk that households could experience a sudden rise in their effective mortgage rate. It was therefore appropriate to capture these risks in the affordability test by linking it to the reversion rate. If the spread of reversion rates over Bank Rate were to come down, the risks to households would diminish and the affordability test would appropriately be based on the lower reversion rate.

87. The current wide spread between reversion rates and Bank Rate could be temporary, reflecting the current low level of Bank Rate and mortgage rates. Lenders could pass on less of any future increase in Bank Rate to reversion rates. This would reduce the risk that reversion rates rose in the future and could merit an adjustment to the 3 percentage points increase in reversion rate included in the affordability test.

88. The FPC therefore agreed to monitor the extent to which Bank Rate changes were passed through to mortgage reversion rates to assess whether there was a case for revisiting the calibration of its Recommendations.

89. Finally, the Committee reviewed assessments of the extent to which the policies were, as intended, holding back increases in the number of more highly indebted households. **In recent years, underwriting standards and mortgage availability had been maintained by lenders. At**

the margin some borrowers might have taken out smaller mortgages as a result of the Recommendations, as intended. This effect was likely to have been small in aggregate.

90. **Vulnerabilities in open-ended funds**

91. The FPC had discussed previously the UK financial stability risks associated with liquidity mismatch in open-ended funds. Many offered daily redemptions while investing in assets that could take longer to sell in an orderly way. For example, there might be times when redemption requests would require the fund to sell assets at a discount relative to what could be realised if the fund had more time to undertake the sale. If redeeming investors received a price that did not reflect this discount, they could benefit at the expense of the remaining investors.

92. This problem might also be compounded if investors anticipated that the price for a unit in the fund might be 'stale', i.e. without the latest information factored in and with further adjustment to come upon sale of the assets, possibly at a large discount.

93. **The FPC judged that the mismatch between redemption terms and the liquidity of some funds' assets meant there was an advantage to investors who redeemed ahead of others, which could create run dynamics and lead to forced sales of assets at prices well below their fundamental values, particularly in a stress**. Those asset sales could test markets' ability to absorb them, further amplifying asset price moves, transmitting stress to other parts of the system, and disrupting the availability of finance in the real economy.

94. As would be set out in the December FSR, open-ended funds had played an important and increasing role in the provision of finance, both globally and in the UK, with the stock of assets held globally more than doubling since the financial crisis to around US$55 trillion. At the same time, recent analysis had suggested that the response of market prices to fund outflows under stress had become more powerful, suggesting that funds were increasingly tending to amplify rather than absorb shocks. **The FPC continued to judge that liquidity mismatch in open-ended funds had the potential to become a systemic risk.**

95. At its October meeting, the Committee had underlined that the incentives to redeem ahead of others should be reduced through greater consistency in the design of funds between the liquidity of a fund's assets, the price received by redeeming investors for their units in the fund, and the redemption frequency and/or length of notice period.

96. The Bank and the FCA were undertaking a joint review to assess how redemption terms might be better aligned with the liquidity of funds' assets. **At its December meeting, the FPC was updated on the progress of the review and established three principles for achieving greater**

consistency between the liquidity of a fund's assets and its redemption terms, which could inform the next stage of the review.

97. The first was that the liquidity of funds' assets should be assessed either as the price discount needed for a quick sale of a representative sample (or vertical slice) those assets or the time period needed for a sale to avoid a material price discount. The concept of classifying and measuring liquidity had been considered internationally. In the US, the Securities and Exchange Commission (SEC) had recently adopted measures of liquidity based on this concept. US funds were required to classify their assets into buckets based on the period of time needed for sale and settlement to avoid a material price discount. Formalising the measurement of liquidity by building on such practices could create greater transparency around fund liquidity.

98. Although the measurement of liquidity was a necessary step, additional measures would be needed to ensure that redemption terms were aligned with the liquidity of a fund's assets. This could be achieved via pricing adjustments, longer notice periods or an appropriate combination of the two.

99. The second principle was that redeeming investors should receive a price for their units in the fund that reflected the discount needed to sell the required portion of a fund's assets in the specified redemption notice period. Swing pricing, which allowed the price to be adjusted to reflect such potential dilution costs to other investors in the fund, was already used by some funds across different jurisdictions. However, to reflect the true marginal impact of a redemption on the fund, the calculation and application of swing pricing would need to go beyond its typical use at present.

100. There were challenges to applying such a mechanism, which required an assessment of the potential sale price before a redemption was made. Swing pricing would vary with market conditions and redemption pressure and so might be difficult to calibrate in practice. During normal times, the price might be easy to establish for assets that were actively traded in deep markets and where redemptions were modest compared to market activity. However, some members noted that calibrating the discount in the price received by redeeming investors could be more difficult in other circumstances and particularly in stressed conditions. Appropriate notice periods, therefore, might need to be considered for more illiquid assets.

101. The third principle was that redemption notice periods should reflect the time needed to sell the required portion of a fund's assets without discounts beyond those captured in the price received by redeeming investors. Longer notice periods would allow more time to sell the assets, without having to accept a lower price that could, without appropriate pricing mechanisms, potentially disadvantage the remaining investors in the collective investment scheme.

102. Some members noted that other tools might still be needed in some circumstances. In some countries, side pockets were sometimes used to segregate illiquid assets, to ensure that the remaining investors were not left more exposed to those illiquid assets when others sold their units in the fund.

103. **In addition to enhancing UK financial stability, these changes should also promote funds' ability to invest in illiquid investments, helping to increase the supply of productive finance to the economy through business and financial cycles in line with the Committee's secondary objective.** Productive finance might require investment in assets that could be very illiquid at times. If such investment was offered via funds with short redemption periods and inadequate pricing adjustments, this could result in sudden suspension of redemptions, loss of confidence in such structures and disruption to the provision of long-term finance. Over time, the shortcomings with those investment vehicles could reduce the overall supply of productive finance.

104. Structures with longer redemption notice periods existed or had been proposed in the UK and elsewhere in Europe. The FPC took note of proposals from industry bodies for funds aimed at increasing the supply of productive finance. For example, the Investment Association (IA) had recently proposed a Long Term Asset Fund structure, which would allow more flexibility in the type of illiquid assets it could hold, to allow for the design of new investment products. The IA had proposed that the dealing frequency for such funds would be calibrated in line with the liquidity of the underlying assets, although the design of such a product remained at an early stage. Separately, the Association of Investment Companies (AIC) had proposed the concept of 'reliable redemptions'. However, such structures could be crowded out because they appeared unattractive to investors when compared to funds that invested in less liquid assets, such as real estate and infrastructure, but that still offered daily redemption and little price adjustment.

105. The FPC underlined the importance of progress in this area. The conclusions of the review by the Bank and the FCA in 2020 would, where appropriate, inform the development of the FCA's standards for open-ended funds and would be used by UK regulatory authorities in their engagement with the industry. Recognising the global nature of asset management, the conclusions could also be used by UK regulators in contributing to international work at the Financial Stability Board (FSB) and the International Organisation of Securities Commissions (IOSCO) on the financial stability risks of asset management activity.

Developments in payments

Ensuring that rapidly evolving payment systems support financial stability

106. The FPC recognised that innovation in payments could bring significant benefits for users. At the same time, the ability to transact safely and smoothly was critical to financial stability and the regulatory framework would need to keep pace with innovation.

107. In the Record of its October meeting, and in the context of HM Treasury's review of the payments landscape, the FPC had set out principles that would guide its assessment of how prudential regulation and supervision should adjust to fast-moving developments in payments activities. Specifically, the Committee had agreed that payments regulation and supervision should:

- Ensure end-to-end operational and financial resilience across payments chains that were critical for the smooth functioning of the economy;
- Reflect the financial stability risk, rather than the legal form, of payments activities; and
- Ensure that sufficient information was available to monitor payments activities so that emerging risks to financial stability could be identified and addressed appropriately.

108. At its December meeting, the FPC examined these issues further. As would be set out in the December FSR, processing electronic payments relied on a chain of activities, from payment initiation and access, through to authorisation, clearing and settlement. Innovation had made payment chains more complex. New firms, separate to regulated banks and payment systems, had become involved in providing payment services and could become systemically important. The operational or financial failure of one link in the payment chain could cause disruption to the whole chain.

109. The current regulatory system to mitigate risks to financial stability from payments had been designed with vertically integrated payment chains in mind, with payment activities conducted primarily by banks and payments systems. Regulation of payments from a primarily financial stability perspective was focused on the authorisation and clearing activities that remained with payments systems. As a result, some innovations in initiation and access payment activities might be regulated against other objectives or fall outside of the regulatory perimeter. It was possible that new entrants could ultimately become critical links in systemically important payment chains without being subject to commensurate regulatory standards from a financial stability perspective.

110. The FPC considered that the current framework would need adjustment in order to accommodate innovation in this sector. The FPC welcomed the opportunity provided by the ongoing HM Treasury review of the payments landscape to ensure that payments regulation could keep pace with changes in payment activities, and innovation could be encouraged and sustained. It considered that the following approach could usefully inform the review:

- Consistent with the FPC's principle that the regulation of payments should reflect the financial stability risk, rather than the legal form, of payments activities, firms that were systemically important should be subject to standards of operational and financial resilience that reflected the risks they posed.

- The systemic importance of any single firm should be informed by whether it was part of one or more systemic payment chains and whether its failure could disrupt the end-to-end chain.

- In order to ensure the information necessary for regulation and supervision to be effective, all firms above a certain threshold carrying out the activities that made up the payment chain should provide sufficient information to support the identification of systemically important payments firms as they emerged.

111. The Committee also discussed the additional issues for regulation posed by stablecoins. Stablecoins issued digital tokens, or 'coins', typically with some form of asset backing designed to establish and maintain a value for those coins. In future, stablecoins might increasingly be used to make payments, and so would fall within the scope of the FPC's principles for payments regulation. They could partially replace or substitute for existing payment arrangements, and it was important to ensure that the activities in a stablecoin payment chain were regulated based on the financial stability risks they posed. In relation to stablecoins, the Committee noted the related work of the Crypto-assets Taskforce, consisting of HM Treasury, the FCA and the Bank, to develop a response to crypto-assets, stablecoins and distributed ledger technology.

112. In addition to creating new payment chains, some stablecoins involved the creation of new money-like instruments in the form of digital tokens. As would be set out in the FSR, this potentially posed risks that went beyond those usually associated with existing payment systems. The Committee noted that any loss of confidence in a payment system and the unit of payment within it could spill over and disrupt other payment activity, with broader implications for financial stability.

113. In assessing how stablecoins should be treated in the regulatory framework, the FPC considered them against its principle that the regulation of payment activities should reflect the financial stability risks they posed, rather than their legal form. It judged that:

- Payment chains that use stablecoins should be regulated to standards equivalent to those applied to traditional payment chains. Firms in stablecoin-based systemic payment chains that were critical to their functioning should be regulated accordingly.

- Where stablecoins were used in systemic payment chains as money-like instruments they should meet standards equivalent to those expected of commercial bank money in relation to stability of value, robustness of legal claim and the ability to redeem at par in fiat.

114. Libra was a high-profile example of a stablecoin proposal. At its October meeting, the FPC had noted that Libra had the potential to become a systemically important payment system and would need to meet the highest standards of resilience and be subject to appropriate supervisory oversight. The regulatory framework that would apply to Libra would need to be clear and in place in advance of any launch.

The transition away from Libor

115. **In June 2018, the FPC had agreed that continued reliance of financial markets on Libor posed a risk to financial stability that could only be reduced through a transition to alternative risk-free rates (RFRs). At its December meeting, the FPC observed that Libor's fundamental weakness – that it relied on markets that were not active – had no prospect of changing. The intention was that sterling Libor would cease to exist after the end of 2021. No firm should plan otherwise.**

116. The Committee was briefed on recent developments regarding markets' reliance on Libor, which would be set out in the FSR. **The FPC agreed that sterling markets showed encouraging signs in the development of new products linked to the Sterling Overnight Interbank Average (SONIA) rate and the transition of some legacy products. But important gaps remained so these efforts would need to continue to accelerate in the first half of 2020.**

117. Members noted that work was underway to address any remaining regulatory barriers to converting to or transacting in new risk-free rates. This included work co-ordinated by international standard-setting bodies, for example, to clarify the application of margin requirements and hedge accounting treatments in relation to existing contracts. The FCA had also recently published a statement to provide clarity on its conduct expectations of firms in the context of Libor transition, including appropriate communication with their clients.

118. Compared to progress in sterling Libor markets, transition remained further behind in US dollars, the largest Libor market. US authorities were leading work to transition from dollar Libor to the new dollar risk-free rate, the Secured Overnight Financing Rate (SOFR). However, the overwhelming majority of swaps in dollar markets continued to reference dollar Libor, rather than SOFR. Any disorderly transition away from dollar Libor could pose risks to UK financial stability, given UK financial institutions' material financial exposures to dollar Libor. The Committee agreed

that it was important to maintain momentum behind the transition away from sterling Libor, even if the transition for other currencies, such as the US dollar, was progressing less quickly.

119. The FPC had previously set out that it would consider potential policy and supervisory tools that could be deployed to encourage such an acceleration where necessary, and to reduce the stock of Libor contracts to an irreducible minimum ahead of end-2021. In this context:

- **a.** The FPC observed that the UK industry working group for transition had set a target to cease issuance of cash products linked to sterling Libor by end- 2020 Q3. The FPC endorsed this target and encouraged all lenders and borrowers to take the necessary steps to prepare themselves to meet this timeline.

- **b.** The Committee welcomed the steps taken by the PRA and FCA to ensure that each of the largest regulated firms had nominated a senior manager to be responsible for that firm's transition away from Libor, and considered this good practice for all firms with material Libor exposures.

- **c.** The Committee welcomed announcements made by some CCPs of their intention to adopt appropriate fallback arrangements for derivative products and that they might elect to use these fallbacks in the event that Libor was found to be unrepresentative.

- **d.** The Bank was currently reviewing its risk management approach to Libor-linked collateral delivered in its Sterling Monetary Framework (SMF), taking account of responses received to a Discussion Paper published in June 2019. This had the potential to play an important role in incentivising firms to transition these instruments in advance of 2021 (for example, if changes were made to eligibility or haircuts). When considering the manner in which any changes were implemented the Bank would balance the need to manage risks to its balance sheet and accelerate the transition away from Libor against any concerns raised by industry, including the time some firms might need to adapt to any changes in collateral policy.

120. As had been agreed in October, the FPC also considered further potential supervisory tools that could be deployed by authorities to encourage the reduction in the stock of legacy Libor contracts to an irreducible minimum ahead of end-2021, and would keep this under review in light of progress made by firms in the transition.

Risks to financial stability from the provision of cloud services

121. The Committee had agreed in November 2018 that it would monitor risks from the provision of cloud services to the UK financial sector. At its meeting, the FPC noted that the PRA's Draft

Supervisory Statement on Outsourcing had set out conditions that could help give firms assurance on the use of cloud services. The FPC agreed to return to risks from the provision of cloud services in 2020.

The FPC's remit response

122. On 4 November 2019, the FPC had received from the Chancellor a letter setting out the economic policy of Her Majesty's Government and Treasury's recommendations under Sections 9D-9E of the Bank of England Act 1998. The FPC agreed its response to this letter, which would be published in December 2019.

The following members of the Committee were present:

Mark Carney, Governor

Andrew Bailey

Colette Bowe

Alex Brazier

Ben Broadbent

Jon Cunliffe

Anil Kashyap

Donald Kohn

Dave Ramsden

Elisabeth Stheeman

Martin Taylor

Sam Woods

Charles Roxburgh attended as the Treasury member in a non-voting capacity.

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 after 31 January. 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.[(a)]

Risks of disruption are categorised as low, medium or high. Arrows reflect developments since the FPC's previously published checklist in the October 2019 Financial Policy Summary. Blue text is news since then.

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 cross-border financial services.

	Risk to UK	Risk to EU	
Most risks to financial stability that could arise from disruption to cross-border financial services in a no-deal Brexit have been mitigated.			
Ensure a UK legal and regulatory framework is in place			The passage of the EU (Withdrawal) Act 2018 and secondary legislation has ensured that an effective framework for the regulation of financial services will be in place, and that EU financial services companies can continue to serve UK customers. Some secondary legislation is still required to implement the domestic state aid framework and to ensure EU legislation that begins to apply during the Brexit extension period can operate effectively after exit day. The FPC expects this to be completed before exit day.
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. EU authorities have provided temporary equivalence and recognition arrangements which will allow EU counterparties to continue clearing trades with UK CCPs until end-March 2020. The FPC welcomes the recent proposal from the European Commission to extend the temporary equivalence of the regulatory framework for UK CCPs. It expects confirmation of this and extended recognition of UK CCPs to be provided by end-December. There are currently £59 trillion of derivatives contracts between the UK CCPs and the EU, £46 trillion of which is currently due to expire after March.
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. UK insurance companies continue to make good progress in restructuring their business in order to service £60 billion of EU liabilities after Brexit. £55 billion of this liability is expected to be addressed by 31 January 2020. Temporary regimes announced by EU states are expected to further reduce the residual 'at risk' liabilities by over 50%. 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			Co-operation agreements between the Financial Conduct Authority, European Securities Markets Authority and EU National Competent Authorities have been agreed. This enables EU asset managers to delegate the management of their assets to the UK after exit. 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 have completed their establishment of EU authorised management companies.

(a) In most cases, the impact on EU end-users will apply to the wider European Economic Area (EEA).

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

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-based banks are transferring their EU clients to subsidiaries in the EU so that they can keep providing services to them. All material subsidiaries are now authorised, fully operational and trading. Firms continue to build the capacity of their EU entities and have made further progress to be ready to serve more EU clients after exit. On average, close to two thirds of clients, including larger clients which represent a greater share of activity, of major UK-based banks have now completed the necessary documentation to enter into derivatives trades with the EU entities. The number of clients actively trading in the new entities is lower. Some operational risks therefore remain, including if many clients seek to migrate to the EU entities in a short period of time. These could amplify any other disruption in the market.
OTC derivative contracts (uncleared)	Certain 'lifecycle'[b] events will not be able to be performed on cross-border derivative contracts after Brexit. This could affect £19 trillion of uncleared derivatives contracts between the EU and UK, of which £15 trillion matures after January 2020. 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 European Commission has not reciprocated for UK-based banks' contracts with EU businesses. Most EU states with material uncleared derivatives activity have implemented legislative measures which seek to address this risk at national level but the scope and effectiveness of these measures will vary between jurisdictions. For some jurisdictions, uncertainty remains about the scope of activity which will be possible once the legislation is implemented. And for some jurisdictions, the published measures only provide a partial solution.
Personal data	The UK Government has legislated to continue to allow the free flow of personal data from the UK to the EU. The European Commission has not taken similar action to ensure the free flow of personal data from the EU to the UK in a no-deal scenario. While the action by the UK Government will reduce disruption, both UK and EU households and businesses may be affected due to the two-way data transfers required to access certain financial services. Companies can add standard contractual clauses (SCCs) into contracts in order to comply with the EU's cross-border personal data transfer rules. UK firms are making use of the time provided by the extension of the UK's membership of the EU to continue to implement these clauses. An ongoing case before the Court of Justice of the European Union (CJEU), judgement on which may be passed by early 2020, could impact the validity of SCCs. The FPC notes that the Advocate General's opinion on this case is expected imminently. If the opinion calls into question the validity of SCCs, firms should review the potential disruption to processes and services reliant on EU-to-UK data flows and consider potential mitigants in the event that the CJEU judgement deemed SCCs invalid.
Implementation period to allow mitigating actions by firms	The UK and European Commission have completed negotiations on a new Withdrawal Agreement that includes an implementation period to 31 December 2020. If agreed, such an implementation period would reduce all of the risks set out in the FPC's checklist.

(b) 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.

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. The European Payments Council (EPC) has confirmed that the UK will retain SEPA access in the event of a no-deal exit. Once the UK becomes a third country, processing some payments — notably direct debits — may require additional information to be included for the payment instructions to meet regulatory requirements. Firms continue to seek to put the necessary information in place where possible, but may not resolve all payments in time. This could result in disruption to both EEA and UK customers and businesses seeking to make and receive payments. UK firms will also need to maintain access to TARGET2 to use it to make high-value euro payments. UK banks intend to access TARGET2 through their EU branches or subsidiaries or correspondent relationships with other banks.
Servicing banking and insurance customers	Major UK banks' and insurers' continued actions to prepare their EU subsidiaries, as covered in the Banking Services and Insurance Contracts rows in **Table B.A**, will enable their provision of services to many EU customers after exit. However, depending on the scope and availability of national regimes, the loss of passporting might also impact the ability of UK banks and insurers[(a)] to provide some services to existing customers resident in the EEA.
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 Obligations require 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 reciprocal trading obligations when it leaves the EU. Firms and venues are taking action to ensure they can trade securities and affected derivatives 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 clients 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.
Increased prudential requirements	EU regulations subject EU banks' and insurance companies' non-EU exposures (which, after exit, will include their holdings of UK securities) to stricter capital and liquidity requirements. Some restrictions might also be imposed for EU Money Market Funds and institutional investors on holdings of UK-managed or located exposures. UK legislation, which is aligned with EU rules, would similarly subject UK-authorised firms to stricter requirements on non-UK exposures. Secondary legislation passed in the UK allows regulators to delay the impact for UK firms. The Bank expects to publish the final transitional direction ahead of the UK's withdrawal from the EU.
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 the ratings are endorsed by an EU CRA. A co-operation agreement exists between ESMA and the FCA, and UK CRAs have EU entities to endorse UK ratings. EU and UK authorities have also completed assessments to facilitate such endorsements. The decision to endorse ratings ultimately lies with the CRA.
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. EEA countries accounting for almost all the EEA members of UK FMIs have implemented national legislation intended to provide settlement finality protection in the event of insolvency of local firms using financial market infrastructure in non-EU countries. For countries where protections are not in place, UK FMIs have implemented other mitigants.

(a) See PRA communications to firms regarding ACPR's statement regarding UK insurers' use of the French Run-Off Ordinance.

ANNEX: 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 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	The FPC agreed at its meeting on 13 December 2019 to set the UK CCyB rate at 2%. This would take effect in one year. This rate is reviewed on a quarterly basis. 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
[2] http://www.bankofengland.co.uk/pra/Documents/publications/ps/2014/ps914.pdf
[3] https://www.fca.org.uk/publications/finalised-guidance/fg17-2-fpc-recommendation-loan-income-ratios-mortgage-lending