The interaction of the FPC and the MPC

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- The Bank's Financial Policy Committee (FPC) and Monetary Policy Committee (MPC) are separate committees, each with their own primary objectives, but with a common secondary objective. In addition, the policy actions of one committee can affect economic and financial variables of interest — and hence the policy stance — of the other.
- There are clear benefits from having two separate committees. But there is also considerable scope for, and benefits from, effective information sharing and dialogue between the FPC and MPC, and a shared understanding of each committee's approach to policymaking.

Overview

The recent reforms to the UK system of financial regulation included the establishment of the FPC at the Bank of England as the United Kingdom's macroprudential authority. The FPC has its own set of instruments and a primary responsibility for protecting the resilience of the financial system. It is a separate committee from the Bank's MPC, the United Kingdom's price stability authority, which has a primary objective to meet the 2% CPI inflation target. Both committees share a common secondary objective to support the Government's objectives for growth and employment.

This set-up of two separate committees, with two sets of policy instruments, means that policy tools can be matched effectively to the objectives they are best suited to achieving. And it means that the expertise of the members and discussion within each committee can be focused on those topics most relevant for meeting its objectives.

In addition, housing both committees in one institution and with overlapping membership brings with it a number of clear advantages. It can facilitate effective information sharing between the committees and the ability to form a shared understanding of key economic judgements and each committee's likely policy response. Policy action by one committee may affect economic and financial variables relevant to the policy objectives of the other. For instance, both committees can affect the cost and availability of credit in the economy, with implications for the size and composition of the balance sheets of households, companies and financial institutions.

The actions each committee takes in support of its own objectives will often naturally complement the actions taken by the other in support of its objective. Recently, this has been the case with the policy actions both committees have taken to support the current economic recovery. The actions of the FPC, to build up the resilience of the UK banking system, helped to support the transmission of monetary policy set by the MPC, as it sought to boost economic activity.

In practice, the targeted nature of macroprudential tools means that the FPC's actions to build resilience serve as the natural first line of defence against risks to financial stability, particularly where these are in specific sectors of the economy. But, on occasion, if the FPC's tools are too narrow or potentially inadequate to deal with the scale of the given threat, it may be necessary for monetary policy to act in response to those risks.

Those overlapping channels of transmission mean it will be vital for each committee, when setting policy, to understand and to take into account the likely effects of the other committee's policy actions. In addition to the institutional set-up, this importance of a shared understanding between the committees has been further recognised in the respective remits and recommendations from HM Treasury, and in the approach embodied in the Bank's Strategic Plan.

(1) The authors would like to thank Christopher Jackson for his help in producing this article.

The Bank's Monetary Policy Committee (MPC) and Financial Policy Committee (FPC) have distinct primary objectives — the MPC for monetary stability and the FPC for financial stability — but a shared secondary objective to support the Government's objectives for growth and employment. The policy actions at the disposal of one committee to meet its objectives may often affect economic and financial variables relevant to the other. Furthermore, the overlapping nature of many of the transmission channels for both committees' policy actions means that the interaction between the two can be complex.

Given this scope for cross-cutting effects of monetary policy and macroprudential policy, this article explores the need for the FPC and MPC to interact to ensure each committee's policy actions are consistent with meeting their objectives. It sets out how the institutional set-up of the two committees in the Bank is designed to reflect this scope for interaction. It then goes on to explore in more detail some situations where it may be important for the FPC and MPC to interact closely. Finally, it describes the approach towards committee interaction adopted by the Bank. This connectivity across areas of the Bank and across its policymaking committees is a key principle of the Bank's Strategic Plan.(1)

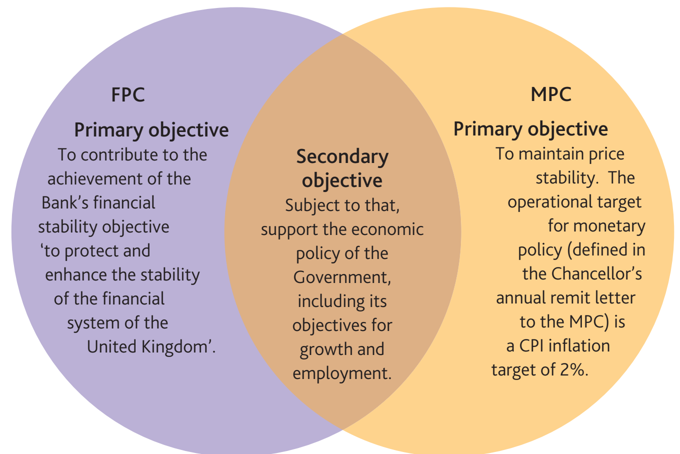
The institutional set-up of the FPC and the MPC

On 1 April 2013, the FPC was established on a statutory basis as the United Kingdom's macroprudential authority, following two years of operating on an interim basis. The FPC has a primary objective to contribute to the achievement of the Bank's financial stability objective '*to protect and enhance the stability of the financial system of the United Kingdom*'. The FPC's responsibility in this regard relates, '*primarily to the identification of, monitoring of, and taking action to remove or reduce, systemic risks with a view to protecting and enhancing the resilience of the UK financial system*'.(2) And it has a set of powers to enable it to achieve this objective. The creation of the FPC fulfils the need — brought into sharp relief by the financial crisis — for a body with the responsibility and the tools to manage risks to overall financial stability, a pre-condition for economic stability and prosperity in the United Kingdom.(3)

The FPC is separate from the Bank's MPC. The MPC's primary objective is to maintain price stability in the medium term, as defined by the Government's CPI inflation target of 2%. In order to meet that objective, the MPC sets Bank Rate. This rate influences other market lending rates, financial asset prices, and the exchange rate, all of which can affect spending and inflation in the economy. The MPC can also directly control the amount of money that the Bank creates by conducting asset purchases, often referred to as 'quantitative easing'.(4)

Subject to achieving their distinct primary objectives, both committees have a shared secondary objective to support the Government's economic policy, including its objectives for growth and employment. This set-up is shown in **Figure 1** and the box on pages 400–01 explains the objectives and tools of the two committees in more detail.

Figure 1 Objectives of the FPC and MPC



This institutional set-up of two separate policy committees that operate in the same institution has a number of potential advantages.

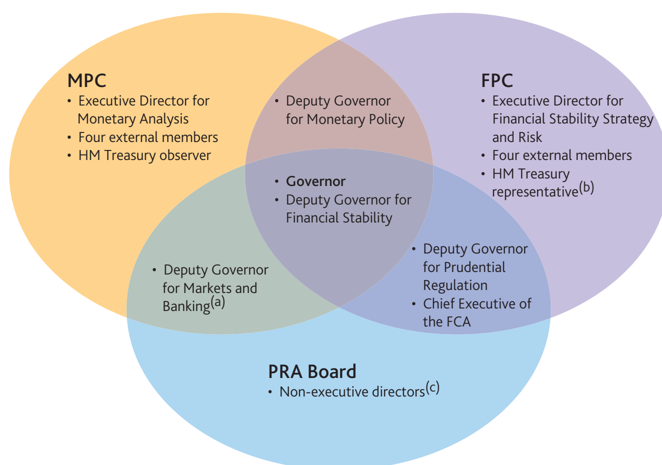
First, this set-up matches policy tools to the objective they are best suited to achieving.(5) It has been argued, for instance, that monetary policy tools are relatively blunt and likely to have more unintended costs than macroprudential tools if targeted at achieving financial stability goals — particularly when it is one particular sector or type of financial activity that is the source of potential instability. In the run-up to the recent financial crisis, for example, very large increases in interest rates would probably have been needed to moderate the increase in credit and asset prices by enough to ensure the resilience of financial institutions.(6) Setting monetary policy instruments to target macroprudential objectives could, therefore, come at a high cost to other objectives, such as price stability and economic output. Equally, macroprudential instruments, as they currently stand, are unlikely to be able to act broadly enough in order to be a sufficient tool to manage short-term changes in economic conditions.

(1) The Bank's Strategic Plan can be found at www.bankofengland.co.uk/about/Documents/pdfs/stratplanback.pdf.
(2) See the Financial Services Act 2012.
(3) See Tucker, Hall and Pattani (2013). The creation of the FPC within the Bank formed part of wider changes to the UK regulatory landscape, which included the creation of the Prudential Regulation Authority (PRA) as a part of the Bank with responsibility for the microprudential regulation of individual deposit-takers, insurers and major investment firms — see Bailey, Breeden and Stevens (2012). The Financial Conduct Authority (FCA) is a separate institution responsible for ensuring that the relevant markets work well; it is the conduct regulator for all financial services firms as well as prudentially regulating all financial services firms not supervised by the PRA (eg asset managers, investment firms, advisors). The FCA also regulates financial services markets and exchanges.
(4) www.bankofengland.co.uk/markets/Documents/money/publications/redbook.pdf. The Bank can also conduct open market operations to control the level of reserves.
(5) See Fisher (2014).
(6) See Bean *et al* (2010).

Second, the distinct primary objectives of each committee provide clarity of purpose. These are helpful in establishing accountability for individual objectives. Furthermore, there is sufficient difference in the focus, time horizons, and type of analysis that would need to be considered to meet each objective that quite different discussions and expertise are likely to be needed in order to make decisions on the appropriate setting for each set of policy instruments. For example, one would expect the FPC to spend significantly more time examining tail risks and interconnectedness in the financial system. In contrast, the MPC is likely to spend more time discussing the most likely outcomes and issues more directly related to the transmission of inflationary pressures, such as wage dynamics in the labour market.[1]

A further advantage of the institutional set-up is the fact that both committees reside under the auspices of the Bank of England, which is operationally independent and accountable to Parliament, and have overlapping membership (**Figure 2**). This set-up supports a high degree of information exchange between the two committees, ensuring that there is a shared understanding of the particular issues and assessments weighing on each committee's policy decisions. It also enables an active dialogue between the two committees in assessing and understanding the impact of policies on both MPC and FPC objectives. Although not the focus of this article, a related feature of the institutional set-up is the overlapping membership of both FPC and MPC with that of the PRA Board, which is responsible for microprudential supervision.

Figure 2 Membership of the FPC, MPC and PRA Board



(a) The Deputy Governor for Markets and Banking also attends FPC meetings.
(b) Non-voting member of the FPC.
(c) The independent members (including the CEO of the FCA) must form a majority of the Board.

Complementarities and trade-offs in FPC and MPC policymaking

Much of the time, the actions that one committee takes in pursuit of its primary objective — whether for price or financial stability — will be complementary to its secondary objective, as well as to the actions and objectives of the other committee. Indeed there may be actions that one committee can take in support of its primary or secondary objectives that allows the other committee to achieve a more favourable trade-off of its objectives.[2] This has been the case for both committees in the policy actions taken to support the current economic recovery — with the FPC's actions to improve capital levels in the UK banking system complementing the MPC's monetary stance.[3] Together, both policies have supported the ability of the UK banking system to provide credit to households and businesses.

On occasion, however, each committee may need to judge how to implement policy decisions in a way that manages any potential trade-off between their respective primary objectives and their shared secondary objective. And sometimes the action taken by one policy committee will affect the primary objective of the other committee.

For instance, the MPC may, in order to prevent inflation falling below target, lower Bank Rate or purchase assets in order to boost aggregate demand. Such an action would be likely to encourage private borrowing and, in some circumstances, that could be associated with an increase in the risks to financial stability, requiring countervailing action by the FPC. Similarly, the FPC may decide to introduce measures that seek to increase the resilience of the financial system, which in some circumstances could cause lending growth to slow. That, in turn, may reduce aggregate demand and lead inflation to fall below the target, prompting the MPC to take action in response.

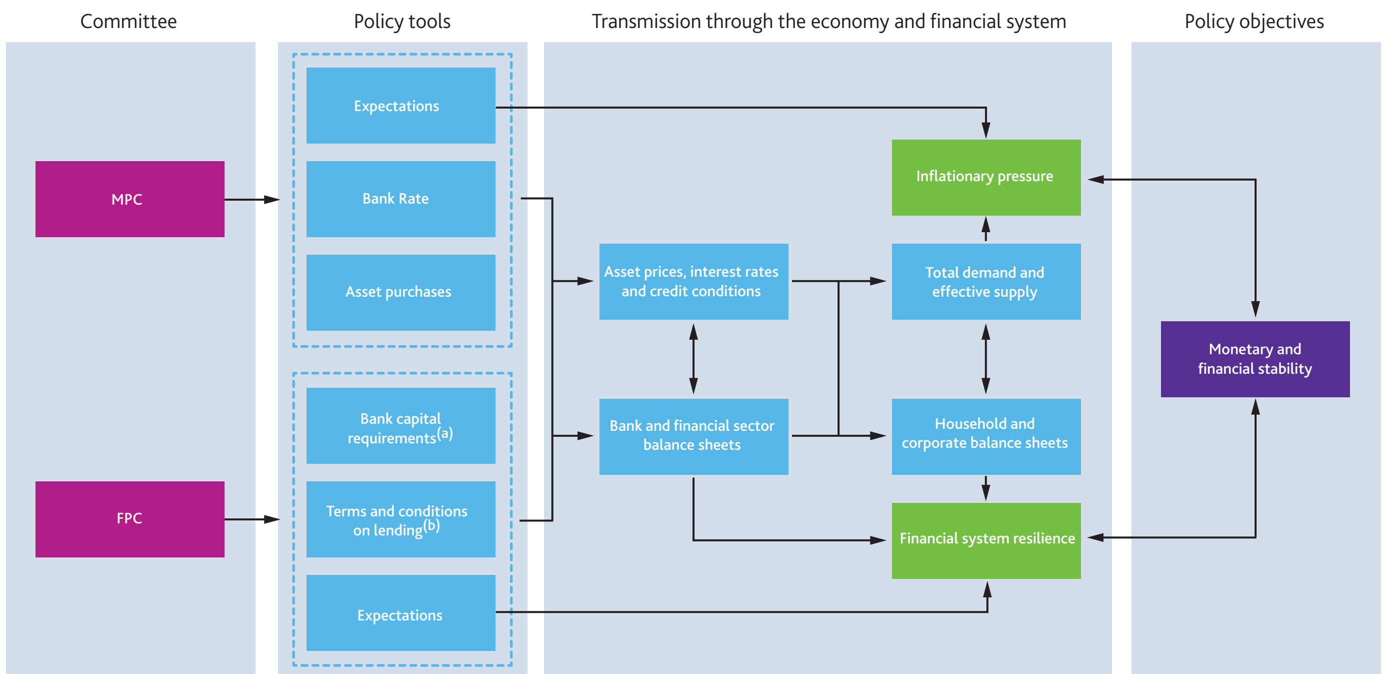
Because of the potential for such spillovers, each committee is required, in its respective remit from HM Treasury, to be clear how it has had regard for the actions of the other in its own policymaking.[4]

Channels of monetary and macroprudential policy interaction

It is clear that, in the past, price instability has contributed to financial crises.[5] The most recent financial crisis, meanwhile, has emphasised that price stability alone is not sufficient to ensure financial stability. Financial crises can both generate large falls in output and impair the transmission of monetary policy.

(1) See Cunliffe (2014).
(2) See, for example, De Paoli and Paustian (2013).
(3) See the Record of the March 2013 FPC meeting, available at www.bankofengland.co.uk/publications/Pages/Records/fpc/2013/record1304.aspx.
(4) See www.gov.uk/government/uploads/system/uploads/attachment_data/file/293733/Letter_from_the_Chancellor_of_the_Exchequer_to_the_Governor_of_the_Bank_of_England_MPC_19032014.pdf and www.gov.uk/government/uploads/system/uploads/attachment_data/file/293985/PU1650_Remit_and_Recommendations_for_FPC__print_.pdf.
(5) See, for example, Schwartz (1995) and Bordo, Dueker and Wheelock (2001).

Figure 3 Selected channels of monetary and macroprudential policy interaction



(a) Includes the countercyclical capital buffer, sectoral capital requirements and the leverage ratio requirement.
(b) Includes limits on lending at high debt to income or loan to value ratios, and could include actions such as Recommendations to vary margin requirements.

One of the principle reasons to anticipate spillover effects from the policy actions of one committee onto the objectives of the other is that both committees' policies will affect the cost and availability of credit in the economy. This transmission through interest rates, credit conditions and asset prices onto economic activity and the balance sheets of households, companies and financial institutions is illustrated in **Figure 3**. And the shared nexus of transmission for both sets of policies means that they could sometimes interact in quite complex ways.

The scope for spillover effects means that, at times, there may be benefits from interaction between the FPC and MPC.[1] Dialogue between the committees can help to form a shared understanding of the likely impact of each committee's policy actions and the relationship between them.[2] The rest of this section discusses how some of these policy spillover effects can arise.

Monetary policy and spillovers to financial stability

Monetary policy decisions by the MPC will affect overall credit and financial conditions and hence may have implications for the FPC (**Figure 3**). By setting Bank Rate, the MPC can influence short-term sterling interbank interest rates. Longer-term interest rates are also closely linked to current and future expected levels of Bank Rate.

This means that changes in Bank Rate, and changes in expectations of the future level of Bank Rate, can affect the interest rates at which companies and households can deposit or borrow from banks, and the prices at which capital market assets — such as equities or bonds — can be issued by companies and the government.[3] Furthermore, asset purchase decisions taken by the MPC will tend to affect the prices of the assets being purchased and those of close substitutes, in addition to sending a signal about the path of future interest rates.[4] As a result, changes in monetary policy will affect the consumption and investment decisions of households and firms, and hence the overall level of aggregate demand for goods and services.[5]

The stance of monetary policy can also have important effects on banks' balance sheets. Banks' sources of funding (including deposits) tend to have a shorter average duration than their lending (their assets). In the short run, therefore, changes in Bank Rate may affect banks' funding costs to a greater degree than the return on their lending, thereby directly affecting profitability. Monetary policy, through its impact on aggregate demand, will also affect the extent of credit losses on banks' balance sheets.

Furthermore, monetary policy may affect balance sheets more generally, through its impact on asset prices, and hence the

(1) This is somewhat different to the co-ordination problem between monetary policy and fiscal policy where the potential for both to affect the business cycle leads to an important role for co-ordination to ensure that medium-term price and public debt stability are met — see Bhundia and O'Donnell (2002).
(2) See Bean (2014).
(3) The current level, and expectations, of Bank Rate and the size of asset purchases are not the only determinants of the cost, terms and quantity of credit available to households and businesses — see Button, Pezzini and Rossiter (2010).
(4) See Joyce *et al* (2012) and Joyce and Tong (2012).
(5) For more details see www.bankofengland.co.uk/publications/Documents/quarterlybulletin/Montrans.pdf.

Objectives and policy tools of the MPC and the FPC

This box sets out a high-level overview of the objectives of the Monetary Policy Committee (MPC) and the Financial Policy Committee (FPC), the tools each committee has at its disposal, and how they meet the requirement to be accountable to Parliament and the wider public.

The MPC

The Bank's monetary policy objective is to deliver price stability — that is, low and stable inflation — and, subject to that, to support the Government's economic objectives, including those for growth and employment. The Bank was given operational independence to set interest rates in order to meet the inflation target over the medium term in the 1998 Bank of England Act. This saw the creation of the MPC, which sets Bank Rate on a monthly basis.

Price stability is defined by the Government's inflation target of 2%, expressed in terms of an annual rate of inflation based on the consumer prices index. The remit recognises the role of price stability in achieving economic stability more generally, and in providing the right conditions for sustainable growth in output and employment.

Monetary policy tools and communication

During normal economic conditions, the main instrument of monetary policy is **Bank Rate**. This policy rate affects short-term market interest rates directly and these, in turn, feed into the interest rates facing households and firms.

In exceptional circumstances, such as when Bank Rate has been lowered to close to its effective lower bound, it may be necessary for the MPC to use additional tools in order to meet the inflation target. This was the experience of the recent crisis when, in March 2009 after Bank Rate had been cut sharply to a historical low of 0.5%, the MPC announced a programme of large-scale asset purchases using central bank money, a policy sometimes referred to as **quantitative easing**.(1)

The MPC's interest rate decisions are announced following each of their meetings, and minutes of the meetings are published to provide greater detail on the material discussed and the range of views. Each quarter, the Bank publishes its *Inflation Report*, which sets out the detailed economic analysis and projections on which the MPC bases its decisions. A press conference is held when the *Inflation Report* is published.

The Bank also publishes other material to increase awareness and understanding of its monetary policy function. For example, in August 2013, the MPC published a document setting out how it views the potential trade-offs between its primary and secondary objectives, and the implications of those for the appropriateness of giving forward guidance on monetary policy.(2)

The FPC

As part of the reforms to the UK regulatory framework that came into force in April 2013, the FPC was established as the United Kingdom's **macroprudential** authority. It has a primary objective to contribute to the achievement of the Bank's financial stability objective 'to protect and enhance the stability of the financial system of the United Kingdom'. In particular, the FPC's responsibility is 'primarily to the identification of, monitoring of and taking action to remove or reduce systemic risk with a view to protecting and enhancing the resilience of the UK financial system'. The FPC is also tasked, subject to meeting its primary objective, with supporting the Government's economic policy, including its objectives for growth and employment.(3)

Macroprudential policy tools and communication

The new legislation gives the FPC two main types of power. First, it can make Recommendations to the microprudential regulators, the Prudential Regulation Authority (PRA) and the Financial Conduct Authority (FCA), to take measures to mitigate risks in relation to any aspect of their regulated entities (but not focused on a specified individual entity). The FPC can also make Recommendations to other bodies, for instance the Financial Reporting Council or financial institutions directly, representative bodies such as the British Bankers' Association, HM Treasury and the Bank of England itself.(4)

The other set of powers that the FPC has is to give Directions to the PRA and FCA to deploy specific macroprudential tools prescribed by HM Treasury. The FPC can currently direct the PRA to use:(5)

- The **countercyclical capital buffer** (CCB), which allows the FPC to change capital requirements above normal microprudential standards in relation to all loans and exposures of banks to borrowers in the United Kingdom.

- **Sectoral capital requirements** (SCR), which are more targeted and allow the FPC to change capital requirements on exposures to three specific sectors judged to pose a risk to the system as a whole: residential property (including mortgages), commercial property and other parts of the financial sector.(6)

The use of these tools can improve the ability of the financial system to withstand shocks. Both the CCB and SCR focus on banks' capital buffers. The more a bank uses capital — such as equity — to finance itself, the more it is able to absorb unexpected losses on its assets, without failing or needing to scale back on new lending.[7]

In November 2013, the Chancellor asked the FPC to consider whether it needs powers of Direction over the leverage ratio, how it would use those additional powers if it were granted them, and how such powers would fit in with the rest of its macroprudential toolkit. On 31 October 2014, the FPC published its final report on the leverage ratio and recommended that the FPC should have a power of Direction to set:[8]

- a minimum leverage ratio requirement applicable to all PRA-regulated banks, building societies and investment firms;
- a supplementary leverage ratio buffer; and
- a time-varying leverage buffer.

The Government proposes to seek legislative approval of these powers of Direction in this Parliament.

The Chancellor of the Exchequer also announced in June 2014 that HM Treasury wanted to grant the FPC additional powers to guard against financial stability risks from the housing market.[9] The Chancellor said that he wanted to secure legislation and have such powers in place before the end of this Parliament. In response to the request from the Chancellor, the FPC recommended in September 2014 that it have the power to direct the PRA and FCA to place limits on residential mortgage lending, both owner-occupied and buy-to-let, by reference to loan to value ratios and debt to income ratios, including interest coverage ratios in respect of buy-to-let lending.[10]

FPC policy decisions, including any new Directions and Recommendations that have been agreed, are communicated to those to whom the action falls — for example, the PRA or FCA. In the first and third quarters of the year, these policy decisions are communicated to the public in a short statement released typically a week after the policy meeting. In the second and fourth quarters of the year, the announcement of those policy decisions forms part of the *Financial Stability Report* (*FSR*). The *FSR* also sets out the FPC's assessment of the outlook for the stability and resilience of the financial sector. A press conference is held when the *FSR* is published. And a formal Record of the policy meeting is published, at present, around a fortnight after the corresponding meeting.

For each of its powers of Direction, the FPC must prepare, publish and maintain a written statement of the general policy that it proposes to follow in relation to the exercise of its powers.

(1) The channels through which asset purchases might affect spending and inflation are discussed in Joyce, Tong and Woods (2011).
(2) See www.bankofengland.co.uk/publications/Documents/inflationreport/2013/ir13augforwardguidance.pdf.
(3) HM Treasury is required to give both the MPC and the FPC written notice each year of the Government's economic policy and must make recommendations about the Committees' responsibilities in relation to their respective primary objectives.
(4) See Tucker, Hall and Pattani (2013).
(5) See www.bankofengland.co.uk/financialstability/Documents/fpc/policystatement140113.pdf.
(6) In addition, SCRs can be adjusted at a more granular level, for example, on mortgages with high loan to value or loan to income ratios at origination.
(7) See Farag, Harland and Nixon (2013).
(8) See www.gov.uk/government/consultations/financial-policy-committees-leverage-ratio-framework.
(9) See www.gov.uk/government/speeches/mansion-house-2014-speech-by-the-chancellor-of-the-exchequer.
(10) See www.bankofengland.co.uk/financialstability/Documents/fpc/statement021014.pdf.

value of collateral that can be used to obtain cheaper secured borrowing.[1] For example, if an easing in monetary policy leads to a rise in property prices then households and businesses who own property may be able to borrow more against that property, and increase their leverage. And, if monetary policy leads to a rise in the value of assets held by banks, then they may be able to use that to obtain funding collateralised against those assets, and increase their leverage.

The MPC's objectives are to deliver low and stable inflation and support sustainable growth. These objectives are likely to be of benefit for financial stability, and are necessary conditions for financial stability to be maintained. Monetary policy, set to achieve these objectives, would, therefore, tend to enhance the profitability of financial intermediation activities and reduce the likelihood of severe recessions that can lead to large losses for banks. This, in turn, should support the efficient allocation of capital in the economy.

But the stance of monetary policy could also have some consequences that give rise to risks to financial stability. First, low levels of interest rates can potentially perpetuate economic and financial imbalances that could, over time, build up to levels that create financial stability risks. As discussed above, an intended consequence of lower interest rates is to stimulate economic activity by easing borrowing constraints, in order for the MPC to meet the inflation target. This can lead to increases in debt relative to incomes. Financial stability can become threatened if overall or sector-specific leverage becomes overly reliant on the monetary stance remaining loose, or on credit conditions in a particular sector continuing to be favourable for an unsustainably long time.

For example, low mortgage interest rates are likely, other things equal, to support activity in the housing market and expectations of house price rises. Low interest rates should also help to boost consumption and encourage new dwellings investment. But if the level of household debt expands rapidly and borrowers take out mortgages that they would be unable to afford if interest rates were to rise, then this could make households more vulnerable to future economic shocks. This may have been the case in some European countries — such as Ireland and Spain — where, in the run-up to joining the euro, interest rates fell significantly. Over the subsequent decade, household credit grew unusually rapidly.[2]

Second, in some circumstances, the stance of monetary policy, combined with the presence of financial market frictions, could lead to a mispricing of risk and a misallocation of lending and capital across the financial system. This, in turn, has the potential to unwind disruptively.

For example, a period of low interest rates that coincides with an environment of unusually low asset price volatility may cause market participants to misperceive the amount of risk in certain investments, or intentionally to take on more risk to compensate for the low level of returns — the so-called 'search for yield'. As a result, financial risk across the system as a whole could become underpriced by investors seeking ever riskier asset classes or more complicated structures, even when they are concerned that valuations may be too high. Eventually, as rates and volatility normalise, this mispricing may correct itself, leading to disruption in financial markets. This, in turn, could have negative consequences for economic activity, particularly if the increased exposure to riskier assets has involved increased leverage. This may have been the case in some countries, such as the United States, in the period immediately prior to the financial crisis.[3]

A key part of the MPC's initial phase of forward guidance was the explicit recognition of the risks to financial stability posed by an extended period of low interest rates and the role that the FPC plays in mitigating those risks. The MPC set a 'knockout' such that their guidance — that Bank Rate and asset purchases would be held at the same level — would cease to hold if the FPC were to judge that the stance of monetary policy 'poses a significant threat to financial stability that cannot be contained by the substantial range of mitigating policy actions available to the FPC, the FCA and the PRA in a way consistent with their objectives'.[4] In this way, macroprudential policy (alongside microprudential regulation) forms the 'front-line' in tackling risks to financial stability.[5] Although forward guidance has now moved beyond that first phase, the FPC continues to monitor the risks from the stance of monetary policy, both domestically and internationally, and could take actions regarding those risks or make Recommendations to the MPC.[6]

Macroprudential policy and spillovers to monetary policy

As explained in the box on pages 400–01, as well as specific powers to direct the PRA and the FCA to adjust specific macroprudential tools, the FPC also has broad powers to make Recommendations. As a result, the range of potential policy actions available to the FPC is large, reflecting the different dimensions of systemic risk that the FPC may need to tackle in order to support the resilience of the financial system.[7] Some types of policy action — for example capital requirements — will tend to achieve their objectives primarily by directly increasing the loss-absorbing capacity of banks' balance sheets. Other policies — such as limits on types of mortgage

(1) See Adrian and Shin (2010).
(2) See Haldane (2014).
(3) See Dell'Ariccia, Laeven and Suarez (2013) and Maddaloni and Peydró (2011).
(4) See www.bankofengland.co.uk/publications/Documents/inflationreport/2013/ir13augforwardguidance.pdf.
(5) See Carney (2013).
(6) Sometimes it may be appropriate for the stance of monetary policy to respond to potential risks to financial stability. See, for example, Woodford (2012).
(7) See Aikman, Haldane and Kapadia (2013).

lending — will tend to operate primarily through restricting the quantity of credit.

An important feature of the FPC's macroprudential policymaking — whether applied to capital, lending or other aspects of resilience — is the ability for tools to be targeted at the sources of the risks to the financial system.(1) For example, if imbalances are building up in particular sectors, the FPC can implement policies, such as lending standards and capital requirements, that are targeted specifically at increasing resilience to risk from those sectors.

The potential spillovers to monetary policy from three key sets of macroprudential prudential tools — capital requirements, liquidity requirements and mortgage lending standards — are discussed below.(2) But, beyond these, there are other potential areas of FPC policy action — such as actions relating to the treatment of collateral in wholesale funding markets, or underwriting standards in corporate credit markets — that could have similar spillovers through their impact on financial market liquidity and credit conditions.

Macroprudential capital requirements

During upswings in economic activity there is a tendency for lenders to increase their exposure to risk, in particular via higher leverage and greater maturity mismatch between their assets and liabilities.(3) This is often followed, in a downswing, by a tendency for excessive risk aversion that can exacerbate the economic cycle.

The FPC could use its powers of Direction or Recommendation to increase the proportion of equity capital banks use to fund lending, thereby increasing their resilience to any increase in losses that could materialise. For example, the FPC could act to increase capital relative to the value of assets on a risk-weighted basis, either by increasing the countercyclical capital buffer or increasing capital requirements on lending to particular sectors. Alternatively, the FPC could act to increase capital relative to measures of total assets, such as the leverage ratio.(4)

Unlike debt funding, a bank has no obligation to repay equity capital funding. So higher amounts of equity funding can enable banks to absorb greater losses. An increase in capital requirements in the upswing would, therefore, work directly to increase the resilience of individual financial institutions in the downswing and, in turn, increase the resilience of the financial system as a whole.(5) And, if in response to higher capital requirements banks act to reduce lending growth and leverage in the economy, that could also indirectly help to improve resilience by making the economy less sensitive to financial shocks.(6)

One determinant of the impact capital requirements have on credit conditions is likely to be through the implied impact on aggregate funding costs. Due to the presence of financial frictions, changes in the composition of a bank's liabilities are likely to lead to changes in their funding costs.(7) On average, an increase in capital requirements would be likely to increase aggregate funding costs facing banks and hence increase lending rates. That tightening in credit conditions may help to slow the expansion of risky lending and, hence, help to stabilise it.(8) But the extent to which this happens is likely to vary over time. On the one hand, in the upswing, bank funding costs may be very insensitive to the composition of funding, which would imply a larger increase in overall funding costs in response to an increase in equity capital. On the other hand, during a downswing, as investors become more concerned about the risks on banks' balance sheets, bank funding costs may increase by much less in response to an increase in capital. Indeed, if investors perceive the bank to be inadequately capitalised, funding costs may actually fall.

There is limited experience globally of varying capital requirements within a macroprudential policy regime, and as a result relatively limited empirical evidence for the impact of these tools on credit conditions. But some recent studies have suggested that an increase in capital ratio requirements has, on average, been associated with a modest tightening in credit conditions.(9)

The impact of these wider effects of macroprudential policy on economic activity would need to be assessed in conjunction with the MPC, who would need to consider whether monetary policy should be adjusted in response.(10) If changes in capital requirements were judged to be leading to downward pressure on inflation, for example, the MPC may want to loosen monetary policy to help support aggregate demand through other channels.

Macroprudential liquidity requirements

The FPC could also recommend changes to regulatory liquidity requirements for banks in order to enhance resilience. Banks'

(1) See Lim *et al* (2011) for a discussion of the different impacts of macroprudential tools.
(2) See Farag, Harland and Nixon (2013) for a primer on the concepts of bank capital and liquidity. For an overview of the role and powers of the FPC in conducting macroprudential policy in the United Kingdom, see Tucker, Hall and Pattani (2013).
(3) See Rajan (1994) and Reinhart and Rogoff (2009).
(4) As explained in the box on pages 400–01, HM Treasury is consulting on granting the FPC powers of Direction over: a minimum leverage ratio requirement; a supplementary leverage ratio buffer for systemically important banks; and a countercyclical leverage ratio buffer.
(5) For more details see www.bankofengland.co.uk/financialstability/Documents/fpc/policystatement140113.pdf.
(6) The FPC may also be able to influence banks' responses through its Recommendations. For example, in the March 2013 FPC Recommendations to the PRA to address capital adequacy in UK banks, they specified that this was to be 'by issuing new capital or restructuring balance sheets in a way that does not hinder lending to the economy'. See www.bankofengland.co.uk/publications/Pages/news/2013/013.aspx.
(7) In particular, it will depend on how much investors' required return on debt and equity issued by banks changes in response to a change in banks' leverage. Or, equivalently, the extent to which the so-called 'Modigliani and Miller Theorem' fails to hold. For more details, see Harimohan and Nelson (2014).
(8) See Tucker, Hall and Pattani (2013).
(9) See Macroeconomic Assessment Group (2010), Aiyar, Calomiris and Wieladek (2012) and Francis and Osborne (2012).
(10) See Kohn (2013).

holdings of liquid assets enable them to meet sudden outflows of funding.[1] But, at the same time, holding liquid assets can represent a cost to banks. So, unless those costs are offset by a reduction in the rates at which banks can obtain market funding, increases in liquidity requirements may also increase the interest rates at which banks are willing to lend and have wider effects on credit conditions.

Changes in liquid asset requirements may also more directly affect the stance of monetary policy. The liquid assets used to meet regulatory requirements include both highly rated bonds, such as gilts, and reserves held at the Bank of England. Changes in Bank Rate and asset purchases by the MPC change the price and quantity of those reserves in the banking system. This, in turn, may affect other yields and asset prices in the economy, and banks are likely to seek to adjust their balance sheets in response to these developments. But changes in regulatory liquidity requirements, and market pressures to hold adequate liquid assets, will affect the demand for liquid assets and banks' balance sheets.

For example, unless banks reduce their lending or other assets, increases in the amount of gilts that banks hold are likely to increase the aggregate amount of deposits held in the banking system, at the same time as reducing the quantity of gilts in the non-bank private sector.[2] In some circumstances, this may be similar to when the MPC makes asset purchases, which create deposits in the banking system and corresponding reserves balances that boost banks' liquid asset holdings.[3]

Macroprudential limits on mortgage lending

The housing market and mortgage debt can pose direct threats to financial stability through lenders' balance sheets and indirect threats through household balance sheets. And a spiral of rising house prices and overextension of credit can act as an amplifier of these risks. While capital tools can be used to address risks from the housing market by directly increasing banking system resilience, policies that place limits on lending can be important complementary tools by acting on the quantity and quality of lending.[4]

The FPC can use its powers of Recommendation to the PRA and FCA to affect the terms and conditions under which banks extend mortgage lending to borrowers. In addition to Recommendations, the Chancellor of the Exchequer has also stated that he intends for HM Treasury to grant the FPC further powers of Direction over mortgage lending.[5] The FPC has recommended to the Chancellor that it should be given powers of Direction to be able to apply limits to the extent of mortgage lending at high loan to value (LTV) ratios and to borrowers with high debt to income (DTI) ratios.[6]

Imposing limits on lending at higher LTV or DTI ratios should directly limit increases in leverage and risk-taking during an upswing in the housing market that can create and amplify financial stability risks over the credit cycle.

By acting to discourage excessive borrowing — either through high LTV or high DTI lending, or through other Recommendations — the FPC may also reduce aggregate lending. This, in turn, may have knock-on implications for wider economic activity and thus affect the MPC's policy decisions. But FPC actions that are aimed at moderating tail risks may have much less of an impact on spending in many states of the world. The FPC's Recommendations on mortgage lending in June 2014, for example, were intended to prevent any further deterioration in underwriting standards, and most lenders were acting within the limits recommended at the time they were announced.

FPC and MPC interaction in practice

As outlined in the previous sections, there are clear benefits from having two separate committees for financial stability and monetary stability. In practice, it allows the FPC and MPC to each focus on the issues and the setting of policy tools that are most relevant for achieving its objectives. But the scope for the policy action of one committee to affect the policy objectives of the other — be that the outlook for financial stability, inflation or their shared secondary objective for growth and employment — introduces a need for interaction between the committees. Indeed, absent the right institutional structures, both committees could act to address an issue that affects both monetary and financial stability in a way that does not take into account the effects of the other's actions. Conversely, one committee might not take action because it erroneously expects the other committee to act or misjudges the impact of the actions.

To try to avoid such problems, the set-up in the Bank of England enables the FPC and MPC to interact and exchange information effectively to ensure their policy approaches are congruent (**Figure 4**). The starting point is that the Governor of the Bank of England is the chair of both committees. Further overlapping attendance in the policy meetings of the FPC and MPC comes from the three Deputy Governors: for Monetary Policy, Financial Stability, and Markets and Banking (**Figure 2**). Their presence in those policy meetings as well as the various briefing, discussion and drafting meetings of both committees ensures an understanding of the key issues one committee is facing in the discussions of the other.

(1) See Farag, Harland and Nixon (2013).
(2) See McLeay, Radia and Thomas (2014).
(3) See Butt *et al* (2012).
(4) See Kuttner and Shim (2013).
(5) See www.gov.uk/government/speeches/mansion-house-2014-speech-by-the-chancellor-of-the-exchequer.
(6) See www.bankofengland.co.uk/financialstability/Documents/fpc/statement021014.pdf.

Figure 4 Pillars of MPC and FPC interaction

Incentives	Access to information	Recognition of spillovers
• Overlapping membership. • Remits. • Shared secondary objective. • Potential impact of policy actions on both sets of objectives.	• Principle of free-flowing information. • Access to staff papers. • Invitation to each other's briefing meetings. • Joint briefing meetings.	• Consider impact of FPC actions in MPC forecast. • Consider MPC view on the outlook in FPC risk assessment. • Bank staff work jointly for both MPC and FPC.

There are also a number of other ways in which effective information exchange across both committees is ensured. First, members of both committees have full access to all relevant briefing materials produced by Bank of England staff, for both the MPC and FPC, at the same time. MPC and FPC members also receive direct briefing on the impact of the other committee's policies on their own policy objectives. For example, analysis has been presented to the MPC on the impact of FPC actions on credit conditions and growth and inflation. Meanwhile, the FPC has received briefing on how the low interest rate environment may be affecting financial stability risks.

Second, members of both committees are invited to attend each other's staff briefing meetings. Moreover, the committees have joint briefing sessions on topics of direct common interest in which they can discuss how both monetary policy and macroprudential policy might best respond, and can jointly steer the path for staff analysis and longer-term research.

Third, the Bank aims to ensure that analysis that goes to the committees on areas of common interest is produced jointly by staff across the different areas of the Bank. This encourages a high level of staff interaction and helps to ensure that a wide range of perspectives are presented. Indeed, that collaborative approach to analysis and staff discussion forms a key part of the Bank's Strategic Plan.(1)

In addition to exchanging information, mutual understanding can be enhanced by the committees identifying key policy issues and making clear how they intend to respond when certain shocks hit the economy or financial system. Both the FPC and MPC has taken steps to increase the transparency around their likely policy responses. As described above, the MPC has agreed a policy of forward guidance, setting out clearly the circumstances under which it would consider raising Bank Rate. The FPC, meanwhile, has set out the ways in which it will monitor risks developing in the housing market — which may be directly affected by the current stance of monetary policy — and the appropriateness of the tools at its disposal for dealing with those risks.(2) Furthermore, it has published a policy document setting out its approach to using its Direction tools on bank capital.(3)

There may be times when the policies of the two committees appear to pull in opposite directions.(4) For example, in an environment of slow output growth and weak inflationary pressure, the MPC may loosen monetary policy in order to bring inflation back to target. At the same time, the FPC may judge that it needs to take action to reduce the risk that, in such an environment, lending standards deteriorate and leverage increases. While those two policies may appear to be acting in opposite directions, if the FPC's actions are calibrated only to reduce the risk in those areas of lending that are vulnerable, then both policies together can help to ensure that output growth is supported in a way consistent with the primary objectives of price and financial stability.

In such a situation, the committees may need to consider how to ensure their policies are communicated clearly. This might involve clarifying the respective time horizon over which each committee seeks to achieve its objectives, or explaining how the policy actions are appropriately targeted.

To support wider understanding and accountability for how each committee takes account of the actions and objectives of the other, both seek to explain how they are incorporating the effects of the other committee's policymaking into their own forecasts and decisions.(5) Recently, there have been boxes in both the *Inflation Report*, with the MPC's view on the effects of FPC policy, and in the *Financial Stability Report*, with the FPC's view on the risks from the stance of monetary policy.(6) Committee members also publish research papers and discuss broad cross-committee policy issues in their speeches.(7)

Indeed, the FPC uses the MPC's central projections for macroeconomic variables as the baseline for its own assessment of risks to the financial system stemming from the economic outlook. And the MPC explicitly conditions its forecasts on the policy actions that the FPC has announced. One of the main channels through which this takes place is through adjustments to the MPC's assessment of the cost and

(1) See Carney (2014).
(2) See pages 57–67 of the June 2014 *Financial Stability Report*, available at www.bankofengland.co.uk/publications/Documents/fsr/2014/fsrfull1406.pdf and www.bankofengland.co.uk/financialstability/Documents/fpc/statement021014.pdf.
(3) See www.bankofengland.co.uk/financialstability/Documents/fpc/policystatement 140113.pdf.
(4) See Haldane (2014).
(5) In line with their remits from the Chancellor. See www.gov.uk/government/uploads/system/uploads/attachment_data/file/293733/Letter_from_the_Chancellor_of_the_Exchequer_to_the_Governor_of_the_Bank_of_England_MPC_19032014.pdf and www.gov.uk/government/uploads/system/uploads/attachment_data/file/293985/PU1650_Remit_and_Recommendations_for_FPC__print_.pdf.
(6) See pages 16–17 of the May 2013 *Inflation Report*, available at www.bankofengland.co.uk/publications/Documents/inflationreport/2013/ir13may.pdf and pages 52–55 of the June 2013 *Financial Stability Report*, available at www.bankofengland.co.uk/publications/Documents/fsr/2013/fsrfull1306.pdf.
(7) See, for example, Bean (2012), Kohn (2013) and Miles (2010).

availability of credit, and to the impact that changes in the availability of credit have on economic activity and inflation.[1]

Recently, the FPC and MPC have had a series of joint briefings on risks stemming from the housing market. These covered the implications of housing market activity for economic activity more widely, developments in mortgage market conditions, and the risks to the financial system that can stem from those. The MPC and FPC also benefited from a joint approach to briefing and discussion in July and August 2014, when they reviewed developments relating to the referendum on Scottish independence and the associated contingency planning by the Bank.[2]

Conclusion

The creation of a macroprudential authority, the FPC, at the Bank with a set of tools and objectives to protect and enhance the stability of the UK financial system has helped to fill a clear gap in the ability of policymakers to promote economic stability. That those powers and objectives are in a separate committee to the MPC has a number of clear advantages but also raises a number of challenges described in the article.

The Bank aims to overcome those challenges by fostering continuous dialogue between committee members, by ensuring free-flowing information and by ensuring that both committees are transparent in their approaches to incorporating the other's policymaking into their respective assessments.

The ways in which monetary and macroprudential policy have the potential to interact are complex and not yet fully understood. But ensuring a high level of communication and interaction between the committees will help to mitigate the risk that key judgements and policy stances are taken in isolation.

(1) For more details on how staff at the Bank assess the stance of credit conditions see Butt and Pugh (2014).
(2) For more details, see the Record of the FPC's September 2014 meeting, available at www.bankofengland.co.uk/publications/Documents/records/fpc/pdf/2014/record1410.pdf.

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