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Title: Financial Policy Committee: macro-prudential tools IA No: Lead department or agency: HM Treasury Other departments or agencies:	Impact Assessment (IA)	
	Date: 10/01/2013	
	Stage: Final	
	Source of intervention: Domestic	
	Type of measure: Secondary legislation	
Contact for enquiries: financial.reform@hmtreasury.gsi.gov.uk		
Summary: Intervention and Options		RPC Opinion: AMBER

Cost of Preferred (or more likely) Option			
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANCB on 2009 prices)	In scope of One-In, Measure qualifies as One-Out?
£85,900m	N/A	N/A	No
			NA

What is the problem under consideration? Why is government intervention necessary?
 The last financial crisis revealed the need for macro-prudential regulation of the financial services sector. Left unchecked, macro-prudential risks can create instability - with all the associated costs that such disturbances cause - even if individual firms are believed to be sound. The Financial Services Act 2012 will establish a Financial Policy Committee (FPC) within the Bank of England to identify, monitor and address systemic risks to the UK financial sector.

What are the policy objectives and the intended effects?
 The FPC will identify and address systemic risks to the UK economy. The active management of systemic risks will increase the stability and resilience of the UK financial system, minimising the damaging impacts of financial instability.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)
 Two policy options have been considered: "do nothing" (the base case where the Government does not provide the FPC with direction powers for any macro-prudential measures) and the preferred option of providing the FPC with direction powers to set the level of the Countercyclical Capital Buffer (CCB) and impose sectoral capital requirements. The preferred option will result in a reduction in the annual probability of a financial crisis occurring, benefitting the UK by preventing the damage to output that is associated with these events.

Will the policy be reviewed? It will not be reviewed. If applicable, set review date: Month/Year					
Does implementation go beyond minimum EU requirements?			Yes		
Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base.	Micro Yes	< 20 Yes	Small Yes	Medium Yes	Large Yes
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)			Traded: N/A		Non-traded: N/A

I have read the Impact Assessment and I am satisfied that (a) it represents a fair and reasonable view of the expected costs, benefits and impact of the policy, and (b) that the benefits justify the costs.

Signed by the responsible Minister:



Date: 12/1/13

Summary: Analysis & Evidence

Policy Option 1

Description: "Do nothing" scenario
FULL ECONOMIC ASSESSMENT

Price Base Year 2010	PV Base Year 2013	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: 0	High: 0	Best Estimate: 0

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	0	0	0
High	0	0	0
Best Estimate	0	0	0

Description and scale of key monetised costs by 'main affected groups'

Zero. The Government would not grant the FPC direction powers and so no regulatory costs would be incurred above those already being implemented. This scenario is the baseline for determining the incremental cost of option 2.

Other key non-monetised costs by 'main affected groups'

None.

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	0	0	0
High	0	0	0
Best Estimate	0	0	0

Description and scale of key monetised benefits by 'main affected groups'

Zero. The Government would not grant the FPC direction powers and benefits would not differ from those accruing from regulation currently being implemented.

Other key non-monetised benefits by 'main affected groups'

None.

Key assumptions/sensitivities/risks	Discount rate (%)	3.5
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Direct impact on business (Equivalent Annual) £m:			In scope of OIOO?	Measure qualifies as
Costs: N/A	Benefits: N/A	Net: N/A	No	NA

Summary: Analysis & Evidence

Policy Option 2

Description: Give the FPC direction powers

FULL ECONOMIC ASSESSMENT

Price Base Year 2010	PV Base Year 2013	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: 30,000	High: 128,800	Best Estimate: 85,900

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	0	370	3,100
High	0	1,800	15,500
Best Estimate	0	1100	9,300

Description and scale of key monetised costs by 'main affected groups'

Imposing macro-prudential capital requirements on financial institutions will impose costs on them. It is assumed for the purpose of this impact assessment that these costs will be passed on to consumers of bank lending in the form of higher lending spreads. The higher cost of borrowing has knock-on impacts on output, which is a cost to the UK as whole. These costs are estimated in this impact assessment.

Other key non-monetised costs by 'main affected groups'

There are no significant non-monetised costs.

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	0	3,900	33,000
High	0	17,100	144,300
Best Estimate	0	11,300	95,200

Description and scale of key monetised benefits by 'main affected groups'

Financial crises result in significant output losses. By identifying, monitoring and addressing systemic risks the Financial Policy Committee will reduce the probability of financial crises occurring. The benefit of a reduction in the probability of a financial crisis occurring can be measured in terms of the output losses avoided. This avoidance of output losses is a benefit to the UK as a whole.

Other key non-monetised benefits by 'main affected groups'

Using additional macro-prudential capital requirements to increase the resilience of firms and to restrain over-exuberance should mitigate the depth and severity of downturns and dampen credit booms. Smoothing the supply of credit through the cycle should lead to lower volatility of output. Lower volatility of output could lead to longer periods of expansion which would lead to increased levels of output. This would be a benefit to the UK as a whole.

Key assumptions/sensitivities/risks

Discount rate (%) 3.5

The key assumptions of this assessment are: 1) that the FPC raise and then lower capital requirements evenly over the period between 2014 and 2023, peaking at 2.5%, 1.5% and 0.5%; 2) that the costs of additional capital requirements are fully passed on through lending spreads to consumers; and 3) that UK GDP is equal to the Office for Budget Responsibility's forecast over the forecast horizon (up to and including 2017) and then assumes that GDP grows at two per cent a year in the remaining years of the assessment period.

BUSINESS ASSESSMENT (Option 2)

Direct impact on business (Equivalent Annual) £m:	In scope of OIOO?	Measure qualifies as
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Costs: N/A	Benefits: N/A	Net: N/A	No	NA
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Evidence Base (for summary sheets)

Introduction

1. This assessment should be read in conjunction with the impact assessment *A new approach to financial regulation* which has been prepared for the Financial Services Act 2012. That assessment analyses the costs and benefits of reforming the UK's system of financial regulation as envisioned in the Financial Services Act 2012.
2. This assessment adds to that analysis by considering the impact of macro-prudential supervision by the Financial Policy Committee (FPC) including the use of direction powers provided to it by secondary legislation.

Objective

3. The objective of this legislation is to provide the FPC with the necessary macro-prudential tools to achieve its objectives to protect and enhance the stability of the UK financial system by tackling systemic risks and to support the Government's economic objectives. The tripartite system of regulation did not place clear responsibility for monitoring systemic risks with any regulator. The Financial Services Act 2012 will rectify this omission by establishing the FPC within the Bank of England. Macro-prudential regulation will complement the "twin peaks" system of regulation by identifying, monitoring and addressing systemic risks thereby reducing the frequency and severity of financial crises and smoothing the economic cycle.

Description of options considered

"Do nothing" option

4. This option is the base case for this assessment. In this option the FPC would not be given powers to direct the Prudential Regulation Authority (PRA) and Financial Conduct Authority (FCA) to implement macro-prudential measures.
5. "Do nothing" does not mean "no change in the regulatory environment". It only means that the FPC would not be given direction powers; the other reforms as provided for in the Financial Services Act 2012 – and assessed by the impact assessment published alongside the Bill - are assumed to have been implemented.
6. Other changes to the regulatory environment will continue to happen. These may include the implementation of changes to EU law or changes to domestic regulatory practice including the continuation of current FSA regulatory initiatives by the FCA or the PRA, the implementation of the Independent Commission on Banking's recommendations and Capital Requirements Regulation and Directive IV (CRR/D IV). Future changes to FCA or PRA rules will be subject to cost benefit analysis in essentially the same way as proposed changes to FSA rules currently are.

The preferred option - give the FPC direction powers

7. In this option the FPC will be given the power to direct the implementation of macro-prudential measures by the PRA and/or the FCA.
8. The Government proposes to legislate to provide the FPC with the power to set the level of the Countercyclical Capital Buffer (CCB) and a power to direct the PRA/FCA to adjust sectoral capital requirements. It should be noted that the power to set the level of the CCB is not being provided by the macro-prudential order under 9K of the Bank of England Act 1998 as amended by the Financial Services Act 2012, but has been included in this assessment for the sake of transparency and simplicity. As the CCB will be provided for by the Capital Requirements Directive IV, the FPC will be provided with the power to set the CCB by Section 2(2) of the European Communities Act 1972.

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9. Setting the level of the CCB will allow the FPC to dampen the procyclical nature of financial services markets by requiring institutions to hold additional capital in the upswing building resilience through additional loss absorbing capacity. This requirement would be in addition to their microprudential capital requirements. At other times, reducing the required buffer, back towards the minimum level and so unwinding the previous increase, could help to mitigate an excessive contraction in lending supply during a downturn of the credit cycle.
10. The power to direct the PRA/FCA to adjust sectoral capital requirements will allow the FPC to impose capital requirements on exposures to specific sectors in addition to microprudential requirements. This is a more targeted approach than the CCB. For example, if the FPC felt that activity in the commercial real estate sector posed a systemic risk, the Committee might require firms to hold extra capital against loans for commercial real estate in addition to the microprudential requirements. This could be achieved by altering (where legally possible) risk weights for sectoral exposures directly. The interim FPC has noted that the over-exuberance that preceded previous financial crises has tended to emerge first in specific sectors. Applying additional capital requirements to exposures to these sectors could allow the FPC to address risks in a more efficient manner and before they become deep-rooted and jeopardise the stability of the financial system as a whole.
11. The Government intends to provide the FPC with a time-varying leverage ratio direction-making tool, but no earlier than 2018 and subject to a review in 2017 to assess progress on international standards. The precise design of the tool will depend on the provisions of the relevant European legislation and will be set out in secondary legislation to be introduced by the Government at the time. This assessment does not include the impact of providing the FPC with a leverage ratio tool as the Government does not propose to create this power at this time.
12. The FPC's direction powers will be applicable to firms that fall under the purview of the Capital Requirements Regulation/Directive IV (CRR/D IV), i.e. banks, building societies and investment firms.
13. It should be noted that this assessment covers the direction powers that the FPC will possess at its foundation. The FPC may recommend that its toolkit is expanded or modified in future, and no attempt is made to gauge the impact of potential future macro-prudential measures. The impact of these tools will be assessed if and when the Treasury legislates to provide them.

Analysis of costs and benefits

Introduction

14. As explained above, the "do nothing" option provides the base case for this impact assessment and it is assumed that other changes to the regulatory environment – changes which would happen irrespective of changes to the regulatory structure or organisation - would impact the costs and benefits of each option identically. The net present value (NPV) of each option would therefore be increased or decreased by the same amount, with the ranking of options therefore unaffected.
15. The costs and benefits of the "do nothing" option are therefore assumed to be zero and the costs and benefits of the preferred option are measured as incremental to the "do nothing" option.
16. The transitional and ongoing costs of establishing the FPC have been considered in the impact assessment for the Financial Services Act 2012. This assessment considers the costs and benefits of the FPC utilising macro-prudential direction powers to address systemic risks.
17. The cost and benefit figures produced in this assessment are purely illustrative and should not be considered as estimates of actual costs and benefits. The costs and benefits of the Government's preferred option will depend on factors that it is impossible to predict with certainty.

Costs of the Government's preferred option

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18. This assessment uses a paper published by the Basel Committee on Banking Supervision (BCBS) in August 2010 *An assessment of the long-term economic impact of stronger capital and liquidity requirements*¹, which estimates the impact of additional capital and liquidity requirements, as the basis for its analysis of the costs of applying additional macro-prudential capital requirements. The paper uses a variety of macroeconomic models and data for thirteen countries to estimate the impact of higher capital requirements on lending spreads and, following on from the change in spreads, output. The paper's conservative assumptions (i.e. that the cost of increased capital requirements is fully passed through to consumers and firms via lending spreads and that the cost of capital does not decrease as firms become less risky) makes the cost estimate a likely upper bound. This reduces the risk to this impact assessment that costs have been underestimated.
19. The BCBS analysis has also been used in part for the impact assessments for the Financial Services Act 2012 and the Banking Reform White Paper. The results of this paper are in line with other studies by the Organisation for Economic Co-operation and Development (OECD) and FSA staff². The BCBS paper examines the impact of permanent increases in capital ratios on steady state output, while the FPC will impose counter-cyclical requirements and will not act in a way that will significantly impair the ability of the financial sector to contribute to economic growth in the medium or long term. However, the Government considers the estimates in the BCBS paper to be suitable for producing illustrative costs of potential requirements imposed by the FPC.
20. The paper assumes that, in order to meet a required increase in the TCE/RWA³ ratio, banks raise equity and reduce other forms of cheaper funding increasing their private costs. Higher costs resulting from this shift are passed on to consumers and firms via increases in lending spreads, which imposes a cost on long term steady state output. This cost to output can be considered the cost of additional capital requirements. This assumption about firms' behaviour is a strong one. An occasional paper published by the FSA states that historically, in the UK, adjustments in capital ratio requirements are met half by raising new capital and about half through reductions in risk-weighted assets⁴.
21. The paper estimates that for each additional percentage point increase in the TCE/RWA ratio there is an annual cost to the level of output equal to 0.09% of output. The paper estimates long-term output costs, although there may be additional short term costs resulting from FPC actions if there are market frictions that hamper transition to new requirements.
22. The cost figures for the period examined in this impact assessment are the product of three assumed scenarios: that the FPC raise and then lower capital requirements evenly over the period between 2014 and 2023, peaking at 2.5%, 1.5% and 0.5% (Chart 1 shows these assumptions graphically). These three scenarios have been formulated in order to provide a range of cost estimates. However, the Government does not believe that any one of these scenarios is more likely than the others. As it is impossible to foresee the actions of the FPC, a steady rate of increase followed by a steady decrease has been assumed. This reflects the Government's expectation that the FPC will act symmetrically. These scenarios are illustrative and it is possible that the FPC's actions may differ significantly from them.

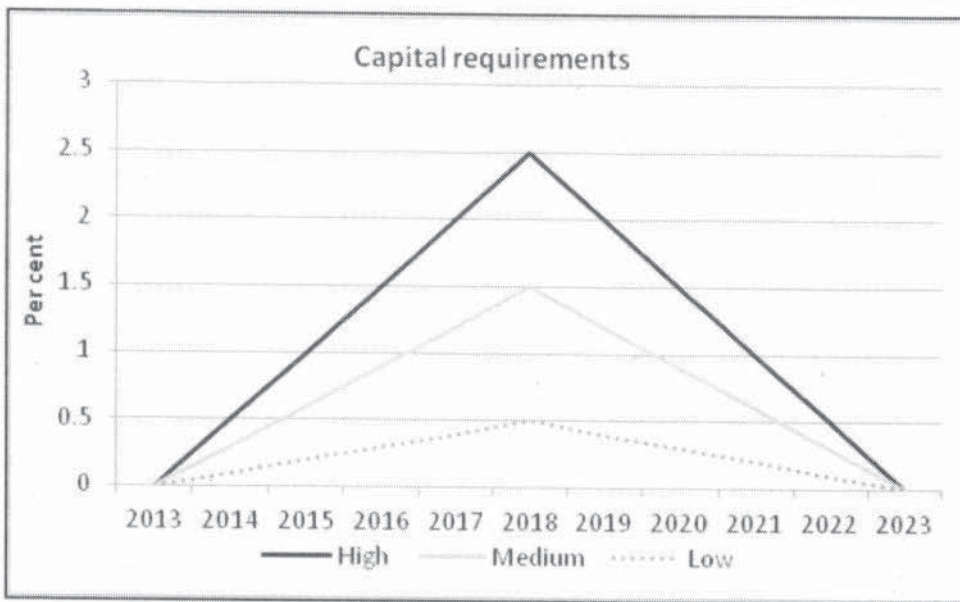
¹ Available at <http://www.bis.org/publ/bcbs173.htm>

² See Slovik, P. and Cournède, B. (2011). *Macroeconomic Impact of Basel III*. OECD Working Paper No. 844 and S de-Ramon et al (May 2012), *Measuring the impact of prudential policy on the macroeconomy: A practical application to Basel III and other responses to the financial crisis*, Occasional Paper Series No. 42, Financial Services Authority

³ The capital ratio is the ratio of tangible common equity (TCE) to risk-weighted assets (RWA). TCE is net of goodwill and intangibles. RWA are measured using historical definitions under Basel I and Basel II.

⁴ Occasional Paper Series No. 42, Financial Services Authority.

Chart 1: Capital requirement scenarios



Source: HMT assumptions

Costs to regulated firms

23. Macro-prudential capital requirements will impose costs on regulated firms as they will have to bear the cost of raising and holding additional capital, shifting away from cheaper funding methods, to meet macro-prudential requirements. This cost will depend on the cost of capital for each firm. There could be additional costs to regulated firms, including for example the cost of changing systems, collecting additional data and compliance costs, but these costs will be dependent on how firms decide to react to requirements imposed by the FPC. If firms are heavily concentrated in sectors targeted by the FPC, they could face large costs if they chose to change their business model or overall strategy. However, for the purpose of this impact assessment – in line with the assumptions of the BCBS paper – it is assumed that these costs are fully passed on to consumers and firms through increases in lending spreads.
24. It should also be noted that firms that already hold capital above the minimum requirements may be less affected by any additional requirements imposed by the FPC via the CCB if they choose to run down voluntary buffers but this will depend on the preferences of firms regarding voluntary buffers above regulatory minimums⁵. However, the size of voluntary buffer held is a commercial decision for individual firms and the Government cannot forecast this behaviour.

Costs to the economy

25. This analysis assumes that the cost of additional macro-prudential capital requirements is passed on to consumers through increases in lending spreads. The increase in the price of credit will reduce consumption funded by borrowing, which has a negative impact on GDP over the short term. However, reduced investment by firms as a result of higher borrowing costs would have a long term negative impact on output. However, the intention of macro-prudential policy is to reduce consumption and investment funded by borrowing to reduce the severity of losses experienced following an unsustainable boom and additional requirements are unlikely to be imposed at the bottom of the cycle if threats to resilience are receding and capital levels are judged to be sufficient to absorb potential future losses. A reduction in output would affect all UK residents to a greater or lesser degree.

⁵ The following papers provide evidence that banks manage capital to maintain buffers over and above regulatory minima. FSA Occasional Paper 22, *What determines how much capital is held by UK banks and building societies?* I Alfon, I Argimon and P Bascuñana-Ambrós, July 2004, FSA. FSA Occasional Paper 31, *On the Behaviour and Determinants of Risk-Based Capital Ratios: Revisiting the Evidence from UK Banking Institutions*, W Francis and M Osborne, July 2009, FSA.

Benefits of the Government's preferred option

26. The benefits of macro-prudential supervision can be estimated by calculating the change in the present value of the total output losses from financial crises (i.e. the output lost as a result of these events) as a result of the reduction in the frequency of financial crises. This reduction in the frequency of crises will result from the FPC using its powers to address systemic risks that would have gone on unchecked under the previous regulatory system.
27. The BCBS paper contains estimates of the output loss avoided as a result of a reduction in the frequency of financial crises. These estimated benefits increase as the reduction in probability increases and as the assumed output loss increases. For example, if it is assumed that financial crises have only a temporary effect on output, the benefits are smaller than if a permanent output loss is assumed. Chart 2 shows how the costs differ between these assumptions. The paper and this assessment make use of three assumptions for the scale of the benefits: that crises have no permanent impact on output, that crises have a moderate permanent impact and that crises have a large permanent impact. The benefits of reducing the probability of crises occurring increases as the scale of output losses is increased.
28. The BCBS estimates of benefits from a one percentage point reduction in the probability of a financial crisis occurring range from 0.19 per cent (when crises are assumed to not have a permanent impact) to 1.58 per cent (when crises are assumed to have a large permanent impact). The probability of a crisis occurring falls as additional capital requirements are imposed. Applying additional capital requirements increases the loss absorbing capacity of banks, making them more resilient, and should reduce over-exuberance as the cost of providing credit increases. A number of other studies have examined the relationship between capital requirements and the probability of a financial crisis occurring.⁶
29. The annualised benefits of higher capital requirements are taken from the BCBS analysis. The annualised output loss avoided for each of the three assumptions used is shown below.

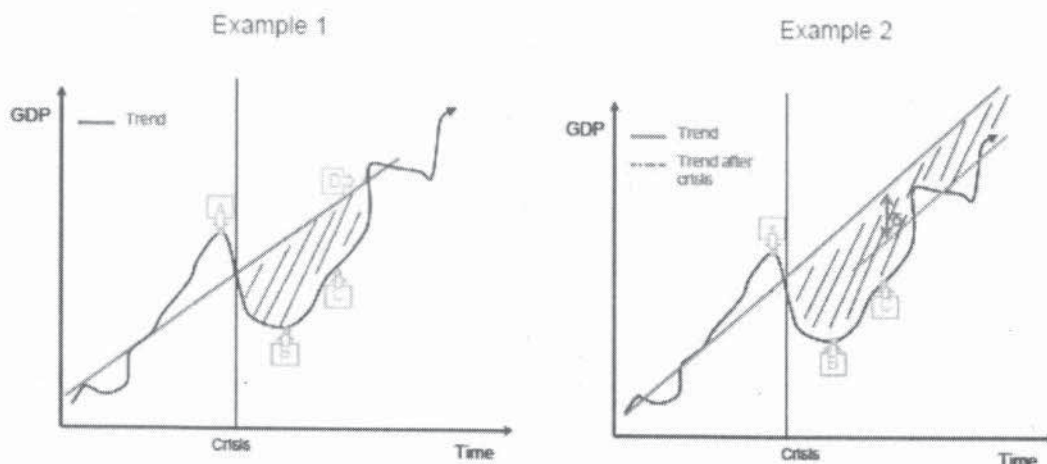
Table 1: Benefits of applying additional capital requirements (annualised % of GDP)

Additional capital requirement (%)	No permanent impact	Moderate permanent impact	Large permanent impact
1	0.29	0.96	2.41
2	0.49	1.62	4.05
3	0.6	1.98	4.97

Source: BCBS paper *An assessment of the long-term economic impact of stronger capital and liquidity requirements* and HM Treasury calculations

⁶ For example, NIESR Discussion Paper 351, *The impact of global imbalances: Does the current account balance help predict banking crises in OECD countries?*, R Barrell, E P Davis, D Karim, I Liadze, NIESR and Brunel University or FSA Occasional Paper 38, *Optimal regulation of bank capital and liquidity: how to calibrate new international standards*, R Barrell, E P Davis, T Fic, D Holland, S Kirby and I Liadze, NIESR and Brunel University.

Chart 2: Measuring the cost of crises



Point A: pre-crisis peak. Point B: post-crisis trough. Point C: GDP growth equals trend GDP growth for the first time after the crisis. Point D: the level of GDP returns to the pre-crisis level.

Source: Basel Committee on Banking Supervision paper *An assessment of the long-term economic impact of stronger capital and liquidity requirements*

30. The probability of a crisis occurring is likely to be cyclical and because the FPC will apply additional requirements counter-cyclically, the marginal reduction in the probability of a crisis occurring is likely to be higher than implied by the BCBS paper, which examines the average reduction in probability in the long-term. By applying additional requirements when risks are building, the FPC will achieve greater stability benefits.
31. For example, the Government believes that the FPC adjusting capital requirements counter-cyclically via changes in the level of the CCB will result in more desirable outcomes than simply imposing permanently higher capital requirements. Increasing the level of the CCB during periods of unsustainable credit growth will impact on lending behaviours - restraining over-exuberance which should reduce the impact once losses crystallise – and build resilience, improving the capacity of the financial system to weather losses. These requirements can then be unwound in order to support firms continuing to supply credit to the economy, lessening the severity of any downturn.

Unquantifiable benefits

32. Using additional macro-prudential capital requirements to increase the resilience of firms and to restrain over-exuberance should mitigate the depth and severity of downturns and dampen credit booms. This would mean lower volatility of output as the supply of credit will be smoother across the cycle. The benefits of lower output volatility are difficult to quantify but could be substantial. Academic literature⁷ postulates that lower output volatility may lengthen expansions as lower volatility suggests lower risk, which impacts on risk premiums, lower precautionary saving and greater certainty for prospective investment decisions.
33. The BCBS paper estimates the reduction in the standard deviation of output by comparing the results of a model in two scenarios: the result of a technology shock on output; and the result of the same shock on output in a stricter regulatory environment. Their estimates for the reduction in volatility in output are below.

⁷ For example *The Long and Large Decline in U.S. Output Volatility*, Olivier Blanchard and John Simon, *Brookings Papers on Economic Activity*, Vol. 2001, No. 1 (2001), pp. 135-164
Published by the Brookings Institution. Available at <http://www.jstor.org/stable/1209161>

Table 2: reductions in the volatility of output

Increase in TCE/RWA ratio from baseline scenario (percentage points)	Decrease in the standard deviation of output (per cent)
2	1.9
4	3.9
6	6.0

Source: BCBS paper *An assessment of the long-term economic impact of stronger capital and liquidity requirements*

Assumptions, risks and sensitivities

34. In order to monetise the impact of macro-prudential requirements imposed by the FPC, this assessment uses the Office for Budget Responsibility's 5 December 2012 forecast of GDP at market prices over the forecast horizon (up to and including 2017) and then assumes that GDP grows at two per cent a year in the remaining years of the assessment period to convert the cost and benefits of additional capital requirements, which are given as percentages of GDP in the BCBS paper, into pound sterling figures that can then be discounted to give the numbers seen in the summary pages of this document. Previous versions of this assessment had used the UK's 2010 GDP figure of £1300 across the period covered in this assessment to provide these estimates. This change has been made to meet the recommendation of the Regulatory Policy Committee (RPC)
35. The absolute figures would change if a different GDP figure was used (e.g. a higher GDP figure would mean higher cost and benefit numbers and *vice versa*). However, as the relative net benefit would remain the same and these are illustrative figures, changing the GDP assumption makes no meaningful difference to this analysis.
36. The BCBS paper on whose methodology this assessment is based makes several assumptions in order to make its estimates. A particularly important assumption is that banks would fully pass on the cost of additional capital requirements through higher lending spreads. In practice, banks may choose to recoup these costs by other means: increasing non-lending revenue, lowering rates paid on deposits, or by lowering operating costs. However, the use of these alternatives would be a commercial decision for individual firms and the Government cannot forecast this with any degree of certainty. Use of these other means would reduce the need to raise the price of borrowing and lower the impact on output as the price of credit would not increase as much as if firms fully pass through the cost of raising and holding additional macro-prudential capital. As such, the BCBS estimate can be considered a conservative estimate of likely costs.
37. This impact assessment assumes that the annualised costs and benefits of additional capital requirements imposed by the FPC occur in the year that the requirement is imposed. In reality, there will be an implementation period between the policy announcement and compliance with the requirement. Some costs and benefits may accrue during this transitional period as firms modify their behaviour to meet the new requirement. It should also be noted that FPC policy decisions will be implemented by the PRA and/or the FCA which may impact the implementation period or method.
38. A key risk to this assessment is the behaviour of firms. Individual firms will decide how to react to policy changes by the FPC, e.g. whether to internalise or pass on costs, which could impact the level of costs and/or benefits of macro-prudential policy.

The FPC's behaviour

39. The assumption about the behaviour of the FPC is the key sensitivity of this assessment.
40. This assessment makes some assumptions regarding the FPC's behaviour. As it is impossible to know how the FPC will act many years in advance, the scenarios presented in this assessment should be considered illustrative. The possible policy actions of the FPC are too numerous to model them all, so this analysis considers three scenarios. These scenarios provide a range of

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illustrative costs but should not be considered likely policy paths. In fact, given the position of the economy in the credit cycle and the interim FPC's declared intention to not front-run Basel III in the long-term, significant tightening in requirements in the near future is unlikely. However, these scenarios have been assumed in order to provide illustrative costs and benefits for the purpose of this assessment.

41. This assessment has assumed that the FPC will raise and decrease capital requirements at a steady pace, not in discrete one percentage point bands as found in the BCBS paper. Where the model assumes a capital requirement that falls between these bands, the benefits and costs have been interpolated. For example, an additional capital requirement of 1.5 percentage points would equate to an annual output cost of 0.135 per cent (0.09 per cent multiplied 1.5). As the relationship between capital requirements and reduction in the probability of a crisis occurring is not linear, only the additional benefit above the percentage band is interpolated. Continuing with the additional 1.5 percentage points example, the benefits in this case are assumed to be equal to the benefits from a one percentage point increase (0.29 per cent if no permanent damage is assumed) plus half the additional benefit of a 2 percentage point increase (0.5 multiplied by 0.2) giving a full annual benefit of 0.39 per cent.
42. No assumption is made as to the split of usage of tools by the FPC. The deployment of macro-prudential directions will be a decision for the FPC that the Government cannot forecast accurately. Furthermore, these decisions will be informed by the outlook for financial stability and other contextual factors at the time. Any assumption about the use of particular tools would be purely arbitrary. Both the CCB and sectoral capital requirements work by requiring firms to hold additional capital, and the assumed increase in capital requirements could be imposed by using a single tool exclusively or through a mixture of both. A one percentage point increase in the TCE/RWA ratio is assumed to have a constant cost whether imposed via the CCB or sectoral requirements.

Rationale and evidence that justify the level of analysis used in the IA

Proportionality

43. There are many various combinations of tools that could be given to the FPC, far too numerous to undertake individual impact assessments as alternate options for all of them. The Government has therefore performed this impact assessment on the basis of comparing the "do nothing" scenario to implementing the Government's preferred option.
44. The Government's preferred option has been developed based on the analysis and recommendations of the interim FPC and responses to the Government's consultations on the reforms to be implemented by the Financial Services Act 2012⁸. The consultations and the interim FPC's analysis considered a wide range of potential tools and feedback was received from a diverse pool of respondents.
45. Given the previous consideration of potential tools and the recommendations made by the interim FPC, this assessment does not consider the impact of the many various combinations of tools that the FPC could be granted control over.

Wider impacts

Statutory equality duties

46. The Government has considered the proposed reforms in relation to its public sector equality duties under the Sex Discrimination Act 1975, the Race Relations Act 1976, the Disability Discrimination Act 1995, section 75 of the Northern Ireland Act 1998 and the Equality Act 2010. It has concluded that no relevant issues arise. All UK residents would be affected to a greater or lesser extent by a

⁸The Government's previous consultations can be found at http://www.hm-treasury.gov.uk/press_08_12.htm. The Bank published a discussion paper entitled *Instruments of macroprudential policy* in December 2011, which can be found at <http://www.bankofengland.co.uk/publications/Pages/news/2011/160.aspx>. The interim FPC's recommendations can be found at <http://www.bankofengland.co.uk/publications/Pages/news/2012/034.aspx>

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financial crisis having a severe impact upon the UK economy or by the output costs of increased lending spreads.

Environmental, social and sustainable development impacts

47. The Government does not anticipate any impact upon greenhouse gases, wider environmental issues, health and well-being, human rights, the justice system, rural proofing and sustainable development. This assumes that the proposed FPC direction powers would not change the relationship between certain environmental phenomena and GDP.

Economic impacts

48. The requirements imposed by the FPC could be imposed across all firms that fall within the scope of CRD IV. This may include micro and small-to-medium enterprises. The FSA estimates that there are thirteen banks/building societies with twenty or fewer employees (six of which have ten or fewer employees). Exempting these firms from macro-prudential requirements imposed by the FPC would limit the effectiveness of the tools. However, the Government will exempt some investment firms from the FPC's tools. Only investment firms that are regulated by the PRA by virtue of a designation under article 3 of the Financial Services and Markets Act 2000 (PRA-regulated Activities) Order 2013 will be in scope of the FPC's SCR tool. CRR/D4 will provide for a similar exemption for some investment firms from the CCB, but the exact wording of this exemption has yet to be finalised.
49. Smaller businesses are generally more reliant on bank funding than large corporates, as they don't have direct access to capital markets. These firms may be more exposed to the impact of an increase in lending spreads than larger firms, but this will depend on the availability of alternatives to bank financing. It should be noted that because small firms are reliant on bank funding, they are more exposed to contractions in credit supply following financial crises. These firms are therefore likely to benefit greatly from macro-prudential policy reducing the probability of financial crises and smoothing the credit cycle.
50. The Government believes that there may be a small impact on competition within the banking sector resulting from the FPC's direction powers. The proposed scope of the FPC's tools is banks, building societies and investment firms. Although this covers the majority of lenders, there are some credit providers outside this scope that will not be subject to the requirements imposed by the FPC, which could provide those firms with an advantage relative to firms in scope. For example, sectoral capital requirements on residential mortgages will not apply to non-deposit taking mortgage lenders. This could help non-bank lenders compete against the established banking sector.
51. The current draft of the CRD IV provides for mandatory reciprocity up 2.5 percentage points for any requirements imposed by via the CCB. This means that any requirements imposed by the FPC will also apply to the UK exposures of foreign banks, which should preclude foreign banks having a competitive advantage over UK banking firms.
52. There will be significant benefits resulting from macro-prudential regulation by the FPC. Financial crises are characterised by large output costs, which often spread beyond the financial sector to the wider economy. Reducing the likelihood of financial crises occurring will result in fewer crisis events, avoiding these potential output losses. The Government expects the FPC to act counter-cyclically. Requirements imposed in the upswing can be unwound after any losses have crystallised.

Transmission mechanisms

53. The FPC will mitigate systemic risks both directly and indirectly. Policy decisions by the FPC to impose macro-prudential requirements on firms will enhance their resilience by increasing their loss-absorbing capacity. The FPC may also influence the behaviour of financial institutions both through their actions which may alter relative prices faced by them, and via expectations regarding future policy decisions, e.g. highlighting a risk in the Financial Stability Report may change the behaviour of firms if they expect future policy action regarding the risk.
54. Imposing macro-prudential requirements or altering the behaviour of firms will result in costs to firms which might be amplified in the short run due to frictions in markets. If, for example, several banks attempt to raise new equity at the same time, investors might demand a premium as their appetite at

current prices could be limited. Furthermore, firms may not be able to reprice all loans instantaneously following an increase in funding costs, resulting in a larger increase in spreads on new or repriceable loans.

55. In principle, unless banks run down voluntary buffers, banks can respond to an increase in capital requirements by:
- Increasing retained earnings for example by reducing dividend payments or bonuses;
 - Issuing new equity and reducing other forms of funding; and
 - Reducing risk-weighted assets by either reducing the size of their loan portfolios or shifting the composition of their balance sheets.
56. Retaining earnings would allow firms to build capital without the need to raise equity in the markets or leverage. However, empirical evidence suggests that dividend payments are sticky (firms may wish to maintain distributions to shareholders to reassure markets that their position is healthy), and banks may be unlikely to cut remuneration (this is often justified as necessary to retain high quality staff). Greater flexibility in both of these areas could, however, emerge under a macro-prudential regime.
57. The resulting funding costs of raising new equity may be offset by perceptions that firms are safer as higher capital makes them more resilient, but any costs not offset by this would need to be met in some other way; possibly internalising the costs or raising the price of lending leading to consumers and businesses to change their borrowing behaviour (as set out earlier in this assessment this would impact the volume of credit and therefore output).
58. If firms chose to adjust by cutting risk-weighted assets, the quantity of credit supplied would be directly affected as firms deleveraged. How firms adjust their asset portfolios will be dependent on prevailing market conditions and their own reaction functions.
59. These actions will lead to a lower volume of credit which is likely to enhance the resilience of the financial system, especially in exuberant conditions, and lower short-term output. Any decreases in investment by businesses would have a longer-term impact on output as investment is necessary to maintain capital per worker. However, investment may be misallocated during credit booms and any output costs would be outweighed by the output losses avoided by reducing the occurrence of financial crises and the beneficial impacts of smoothing the supply of credit through the cycle.
60. This assessment uses capital requirements to provide illustrative costs to output, but the distribution of costs is likely to differ between the tools and depend on how the tools are applied. For example, the Government expects that raising the level of the CCB would result in general increases in lending spreads, which would impact all borrowers to some extent. Sectoral capital requirements imposed on particular sectors are likely to have a narrower transmission mechanism. For example, if the FPC applied additional requirements to commercial property assets, the Government expects that this would primarily impact businesses, with second round impacts on households.
61. On the other hand, requirements placed on residential property assets would most likely impact the borrowing and consumption behaviour of households, via greater mortgage costs, to a greater extent than businesses. This policy could impact the availability of mortgage financing, with knock-on effects for house ownership and prices. However, by mitigating the impact of an unsustainable residential property lending boom the FPC should decrease the severity of any resulting bust.

One in One Out rule

62. This policy deals with systemic financial risk and is therefore out of scope of the governments One In One Out rule for new regulation

Summary and preferred option

63. The Government believes the benefits of providing the FPC with direction powers to implement macro-prudential powers clearly outweigh the potential costs.
64. The Government's preferred option will be implemented via secondary legislation under section 9L of the Bank of England Act 1998 as amended by the Financial Services Act 2012.