



# Summary: Analysis & Evidence

Policy Option 1

Description: "Do nothing" option

## FULL ECONOMIC ASSESSMENT

Price Base Year	PV Base Year	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 powers of direction and for the purposes of this assessment, we assume the FPC would not act. Therefore, there would be no costs. 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 powers of direction and for the purposes of this assessment, we assume the FPC would not act. Therefore, there would be no benefits. This scenario is the baseline for determining the incremental benefit of option 2.

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

None.

Key assumptions/sensitivities/risks	Discount rate	N/A
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## BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:	In scope of OIOO?	Measure qualifies as
Costs: 0	No	NA
Benefits: 0		
Net: 0		

# Summary: Analysis & Evidence

# Policy Option 2

Description: Grant the FPC powers of direction over DTI and LTV

## FULL ECONOMIC ASSESSMENT

Price Base Year N/A	PV Base Year N/A	Time Period Years N/A	Net Benefit (Present Value (PV)) (£m)		
			Low: N/A	High: N/A	Best Estimate: N/A

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

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

It is neither possible nor accurate to produce a final set of monetised costs of granting the FPC direction powers over LTV and DTI limits, given the countless ways the FPC could use these powers. Therefore, the costs have been labelled as not applicable. The evidence base includes quantitative estimates where possible and proportionate for an arbitrary calibration. This is for illustrative purposes and should not be considered an indication of the costs of granting the FPC powers of direction.

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

The main cost of both the LTV and DTI limits will be on the wider macroeconomy from an overall reduction in mortgage lending (if the policy is binding). Firms in scope (i.e. regulated lenders) of the LTV limits may face minimal administrative costs whilst we expect firms in scope of DTI limits could face higher administrative costs.

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

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

It is neither possible nor accurate to produce a final set of monetised benefits of granting the FPC direction powers over LTV/DTI limits, given the countless ways the FPC could use these powers. Therefore, the benefits have been labelled as not applicable. The evidence base includes quantitative estimates where possible and proportionate for an arbitrary calibration. This is for illustrative purposes and should not be considered an indication of the benefits of granting the FPC these powers.

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

The main benefit of both the LTV and DTI limits will be a potential reduction in systemic risk. This could reduce the likelihood and impact of a financial crisis which would bring about substantial benefits. Even reducing the likelihood of crises by 1% is estimated to produce a net benefit of £4.5 billion per annum.

Key assumptions/sensitivities/risks

Discount rate

N/A

Given the final set of monetised costs and benefits are labelled as N/A, there are no relevant key assumptions. However, in the evidence base, we have provided quantitative estimates, where possible, for arbitrary calibrations of DTI and LTV limits. They are accompanied by the relevant key assumptions. It is also important to note that each time the FPC uses its powers of direction, it must publish, where practicable, a cost-benefit analysis specific to the calibration the FPC uses at that time.

## BUSINESS ASSESSMENT (Option 2)

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

# Evidence Base (for summary sheets)

## Introduction

1. The global financial crisis exposed deep flaws in the financial regulatory architecture. Since then, the Government has embarked on an ambitious programme of reforms to deal with the legacy of the crisis.
2. In June 2010, the Chancellor, at his annual Mansion House speech, explained that a key weakness of the system of financial regulation was the lack of focus on broader risks across the economy, especially in areas like housing.
3. As a result, the Government created the independent Financial Policy Committee (FPC) within the Bank of England. The FPC's role includes identifying, monitoring and taking action to address emerging risks and vulnerabilities across the financial system as a whole (i.e. systemic risk).
4. In his Mansion House speech on 12 June 2014 the Chancellor committed to ensuring that the FPC has "all the weapons it needs to guard against risks in the housing market". He said that the Treasury would consult on the tools, and that they would be in place before the end of this Parliament.

## Objective

5. The UK mortgage market fulfils a critical role in supporting the UK housing market. However, it can also pose threats to financial stability (i.e. lead to increased systemic risk) via two channels as set out by the FPC:
  - Direct threats to financial stability result from mortgages being the single largest asset class on UK banks' balance sheets. An increase in defaults on mortgage loans, especially when accompanied by large declines in the value of housing assets used as collateral can significantly impair banks' capital positions and access to finance.
  - Indirect threats to financial stability stem from the mortgage market as mortgages are also the single largest liability on the UK household sector's balance sheet representing 80% of household debt<sup>1</sup>. A fall in perceived housing wealth could therefore cause households to cut back on spending. In turn, this can weigh on economic activity, and may lead to losses on a wider set of assets on banks' balance sheets.
6. In addition, the prevalence of floating-rate and relatively short-term fixed-rate mortgages in the UK makes housing particularly sensitive to changes in interest rates. This can amplify both the direct and indirect risks.
7. The FPC is empowered to make recommendations to the Government that it be given powers of direction over specific macroprudential tools. On 2 October 2014, in response to the Chancellor's Mansion House announcement, the FPC recommended that it should be

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<sup>1</sup> See *Financial Policy Committee statement on housing market powers of Direction from its policy meeting, 26 September 2014*, available at

<http://www.bankofengland.co.uk/financialstability/Documents/fpc/statement021014.pdf>

granted the power to direct, if necessary to protect and enhance financial stability, the Prudential Regulation Authority (PRA) and Financial Conduct Authority (FCA) to require regulated lenders to place limits on mortgage lending, both owner-occupied and buy-to-let, by reference to:

- Loan-to-Value (LTV) Ratios; and
  - Debt-to-Income (DTI) Ratios, including Interest Coverage Ratios (ICR) in respect of buy-to-let lending.
8. The FPC believes that taken together, these powers (alongside the FPC's existing powers) are necessary, and should be sufficient, to tackle risks to financial stability from the housing market.
  9. Previous crises have shown that ignoring financial stability risks emanating from the housing market can result in excessive leverage, loosening underwriting standards and growth in indebtedness and these factors can pose a systemic risk to the real economy. The Government believes that, in instances where the housing market appears to pose a systemic risk, regulation is absolutely necessary to mitigate this risk as financial crises have huge output costs. Furthermore, as the FPC explained in its statement on housing market powers of direction, more than two thirds of systemic banking crises were preceded by boom-bust housing cycles and recessions following property booms have been two or three times deeper on average than those without.
  10. However, the Government believes that regulation should only occur if and when it is necessary. Therefore, the FPC, in accordance with its statutory objective, would only use these tools if they considered it to be necessary to address financial stability risks (i.e. systemic financial risk), and the FPC is required to use its powers in a proportionate way. Furthermore, the FPC is required to publish a cost-benefit analysis, where practicable, each time it uses its powers of direction. The Government is strongly in favour of these cost-benefit analyses and expects the FPC to require a high bar for not producing these estimates. The FPC is also required to review any outstanding directions given to the PRA or FCA within a year of the direction being given and then at least annually following the initial review. The purpose of these reviews are to consider whether the direction ought to be revoked. Together, these requirements ensure that the regulation is only being applied when it is understood to be necessary for the financial stability of the UK.
  11. The Government's consultation on the policy and legislation closed on 28 November 2014. The consultation questions specifically asked respondents for their views on the impact of the Government's proposed approach. These comments have been reflected in this impact assessment.
  12. The objective of this legislation is to provide the FPC with the necessary macroprudential 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.

## Description of options considered

### **“Do nothing” option**

13. This option is the baseline scenario for this assessment and assumes zero cost. The Government would reject the FPC’s recommendation and therefore the FPC would not be given any powers to direct the PRA and FCA to place limits on mortgage lending, both owner-occupied and buy-to-let, by reference to:
- Loan-to-Value (LTV) Ratios; and
  - Debt-to-Income (DTI) Ratios, including Interest Coverage Ratios (ICR) in respect of buy-to-let lending.
14. However, the FPC has an existing power of making recommendations to the regulators (i.e. the PRA and FCA) about the exercise of their functions. Therefore the FPC could decide to issue a recommendation in the absence of direction powers. If the regulators comply, we would not expect any material difference in the economic impact from the application of the rules as a recommendation instead of a direction. However, there are other benefits of using a power of direction over a recommendation, such as certainty and accountability, which are discussed in detail in the next section.
15. It would be impossible to predict all potential actions from the FPC and the regulators in the event that the Government did not grant the additional above-mentioned FPC powers of direction.
16. Nonetheless, in order to assess the impact of granting the FPC powers of direction, we need to make an assumption on the FPC’s behaviour for the purposes of the baseline scenario. Therefore, purely for the purposes of this impact assessment we will assume that “do nothing” means that the Government rejects the FPC’s recommendation and the FPC does not act.
17. Alternatively, we could also have assumed that the FPC takes the same action (using its powers of recommendation) upon being denied powers of direction by recommending that the PRA/FCA apply LTV/DTI limits instead of directing them to do so. This would mean granting powers of direction would have no impact beyond that of a recommendation except that it may lower familiarisation costs (explained below) as the final policy applied would be the same but enacted through different powers. We believe it is prudent to assess the upper bound for the costs and benefits and assuming the FPC does not act in the baseline scenario achieves this as the preferred option is compared with a zero baseline. Moreover, under a direction the regulator is compelled to comply within the scope of its powers but under a recommendation the regulator could choose not to comply but would be required to explain its rationale for doing so. This is not an assumption about how we expect the FPC to act but simply an arbitrary assumption for the purposes of this impact assessment.

## **The preferred option – grant the FPC direction powers over the owner-occupied market**

18. The Government proposes to legislate to provide the FPC with powers of direction over LTV limits and DTI limits in respect of owner-occupied mortgages. The Government intends to consult separately on powers over the buy-to-let market in 2015 and therefore they are not included in this impact assessment.
19. Powers of direction have several benefits over powers of recommendation. Firstly, powers of direction provide for greater certainty for the FPC as, unlike a recommendation, the regulator is compelled, within the scope of its powers, to comply with the direction. In particular, this holds under those circumstances where tensions could arise between the preferred policy actions of microprudential and macroprudential regulators. For example, in a downturn the macroprudential authority might judge that loosening regulatory requirements could help to protect and enhance the resilience of the financial system as a whole, whereas the microprudential regulator may place more weight on maintaining standards to ensure the safety and soundness of individual firms. Giving the FPC powers of direction would help ensure that macroprudential concerns remain represented at this crucial moment.
20. Furthermore, powers of direction allow for greater accountability and policy predictability than recommendations. In addition to the duty to explain how a policy action will help the FPC meet both its objectives, which applies to both recommendations and directions, the FPC is required to produce and maintain a statement of policy for each of its direction powers. Whilst a statement accompanying a recommendation would be specific to that recommendation and explain the rationale, the policy statements for powers of direction set out how the specific tools are defined, the likely impact the tools are expected to have on lenders' resilience and the wider economy (i.e. a cost-benefit analysis where practicable), and in what situations the FPC would expect to use the power. The FPC is also expected to provide as part of the statement a list of key indicators that it will consider when judging if policy action using the tool in question is appropriate. Explanations of this depth are not possible or practical for the FPC's recommendation power because of the countless ways in which a recommendation could be used. The information contained within the policy statement help market participants to discern the FPC's policy reaction function. Greater policy predictability could lower familiarisation costs as firms would have greater information on how and when the FPC would be likely to use its powers of direction. This also allows for greater accountability as the policy statement serves as useful context for assessing the effectiveness of the FPC's intervention.
21. In relation to the scope of any FPC directions, they can only apply in respect of PRA- and FCA-authorized firms. However, the FPC could recommend that the regulatory perimeter is expanded to non-regulated firms if it became concerned with activities moving to unregulated entities.
22. The FPC will have the flexibility to give directions to either or both the PRA and FCA, and specify any thresholds above or below which the direction will apply. The legislation

granting the FPC these powers does not set an ex-ante de minimis level, given that this will depend on the specific circumstances in which the FPC issues a direction. There is scope for this to be set by the FPC in its directions or for the FPC to give discretion to the PRA and the FCA to fine-tune the level. As per its legal obligations under the Bank of England Act 1998 (as amended by the Financial Services Act 2012), the FPC, when issuing a direction, will need to consider what modifications may be appropriate to take account of any proportionality implications. For instance, in issuing the recommendation on LTI limits in June 2014, the PRA considered it appropriate to define a de minimis threshold on both a volumes and values basis to ensure that the impact of the rule is proportionate.

## **Cost-benefit analysis**

### **Introduction**

23. Under the Government's preferred option (i.e. granting the FPC powers of direction), we are unable to predict precisely how the independent FPC will use these powers. This is analogous to the Monetary Policy Committee (MPC) having the power to set interest rates. We cannot predict what interest rates it will set in the future and therefore it is impossible to do a cost-benefit analysis on the MPC being able to set interest rates. The MPC has a price stability mandate and we would be able to qualitatively assess the costs and benefits of price stability. We could also provide an illustrative scenario (e.g. raising interest rates by 1%) and quantify the costs and benefits under this scenario. But given the countless ways in which the MPC could change interest rates, it would be misleading to use the illustrative scenario to conclude a set of final monetised costs and benefits. Furthermore, it would not be proportionate to undertake numerous such examples, particularly given that they would remain purely arbitrary.
24. Akin to the above MPC example, it is neither possible nor accurate to produce a final set of monetised costs and benefits of granting the FPC direction powers over LTV and DTI limits, given the countless ways the FPC could use these powers. For example, the FPC could set a limit on mortgages with a 80% LTV or higher in year 1, then change this to a 70% LTV while also applying a DTI limit in year 2, until finally removing both limits in year 3. We could quantify the costs and benefits of this specific policy, but any different policy (such as one without the DTI limit in year 2) would result in different numbers.
25. As mentioned above, the FPC will be required to produce a policy statement in relation to these powers of direction. We expect the FPC to publish a draft policy statement in early 2015 and a final statement will follow the legislation being made. Each time the FPC uses these powers it will also be required to publish, where practicable, a cost-benefit analysis at that time. This cost-benefit analysis will be specific to the calibration of the tools that the FPC chooses to use and will vary each time the FPC changes calibration. As it is not possible to do a single cost-benefit analysis that encompasses all potential FPC policy decisions, the costs and benefits in the summary sheet indicate not applicable (N/A).



26. Given the above and the importance of assessing the costs and benefits as far as is proportionate, the rest of this paper includes a high level discussion of the potential costs and benefits of LTV and DTI limits, analysed separately. It describes how each tool would work (i.e. the transmission mechanism), explains qualitatively the costs and benefits of that tool and, where possible, provides quantitative analysis of an arbitrary illustrative scenario. We have also included a short description of potential interactions between the two tools.
27. The costs and benefits of the preferred option are measured as incremental to the “do nothing” option.

## **LTV Limits**

28. The LTV ratio for a new mortgage is calculated as the ratio of mortgage value to property value at origination (i.e. at the time the mortgage is granted). The LTV limit would set two parameters and specify that, over a given period of time, no more than a specified proportion of new mortgages (in value or volume terms) by a given lender can have an LTV at origination above a certain level (sometimes referred to as the ‘threshold’ in the remainder of this document). If the specified proportion is set to zero then the tool operates as a hard cap, where all mortgages with LTV ratios above a certain level at origination are prohibited. If the specified proportion is set at above zero this allows for some lending above the threshold.
29. An LTV limit acts by either setting the minimum size of deposit that a borrower needs to buy a property (or equity in the property to obtain a further advance or a re-mortgage with an increase in the loan) or the maximum size of loan that they can borrow for a given level of deposit. For example, a 95% LTV limit would require the borrower to have at least a 5% deposit.
30. There is empirical evidence of a positive correlation between LTV ratios at origination and subsequent mortgage default.<sup>2</sup> Therefore an LTV limit could potentially reduce defaults in a lender’s mortgage book. Furthermore, it reduces the loss to the lender in the event of default. Imposing limits on lending at higher LTV ratios should act directly to limit the exposure of individual lenders as well as of the system as a whole to this risk.
31. The precise impact of an LTV limit on mortgage lending would depend on the calibration of the tool and the reaction of lenders and borrowers. Some lenders would comply by offering fewer and/or smaller mortgages. The latter case would require that some borrowers are willing or able to take smaller loans and buy cheaper properties. Some borrowers would comply by increasing their deposits. While this could result in lower consumption expenditures in the short run, it would reduce borrowers’ indebtedness and therefore cause a fall in the probability of default.

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<sup>2</sup> See *Financial Policy Committee statement on housing market powers of Direction from its policy meeting, 26 September 2014*, available at

<http://www.bankofengland.co.uk/financialstability/Documents/fpc/statement021014.pdf>

## Costs

32. This section describes the costs qualitatively and provides quantitative estimates where practicable and proportionate.

### *Costs to the regulators*

33. We estimate that there will be no incremental costs to the regulators from implementing a LTV limit. The FCA Product Sales Database (PSD) includes the information required for the calculation of the ratio for all mortgages extended by PRA and FCA regulated entities. Therefore, no additional data collection would be required. Monitoring the application of the rule would be covered as part of 'business as usual' supervisory monitoring.

### *Direct costs to regulated businesses*

34. As all regulated businesses are already required to provide the information on new mortgages that is collated in the PSD, there would not be any additional cost related to data collection as a result of the legislation. Moreover, there would likely be no additional IT/staff training costs. Firms are indeed likely to have already in place the IT systems needed to monitor their compliance with the limits and to have already complied with the related staff training needs, given that lenders have implemented internal affordability tests for some time. However, each time the FPC uses the tools and specifies a calibration, firms may need to make minor modifications to their existing rules/internal policies which will have a non-zero, albeit small, familiarisation and other administrative costs. Therefore, we expect minimal one-off and ongoing compliance costs for regulated firms. The FPC would also be required to conduct a cost-benefit analysis, where practicable, each time it specifies a calibration and ensure it takes accounts of any proportionality implications.

35. The regulation could affect firms' profitability. The size of the impact would of course depend on the calibration at the time and how lenders will react to the rule.

36. For example, if the regulation reduced the amount of high LTV lending that firms could do, then this would clearly impact those firms that engaged predominantly in high LTV lending. According to PSD data, between 2005 and 2013 only about 3-4% of firms had more than 50% of their new mortgage lending at LTV above 90%, suggesting that for most firms, limits on high LTV lending would not have significant impacts. Whilst the data gives us an average across the population of firms, it does not tell us of the distributional impact and it is plausible that certain firms would face a much larger impact than others. The precise impact would of course depend on the exact limit the FPC chose to implement.

### *Small and micro-business assessment*

37. The effect on small and micro-businesses will be twofold. First, small and micro-lenders in scope of the FPC's powers of direction will be directly impacted by any limits. Second, non-financial small and micro-businesses might not be able to get access to mortgage-related funding.

38. There are 13 small lenders (i.e. those with up to 49 employees) and 20 micro-lenders (i.e. those with up to 10 employees) in scope of the FPC's powers of direction. However, the number of small and micro-lenders affected by the LTV limit will depend on each lender's business model. Preliminary analysis on the composition of the mortgage portfolio of small building societies and credit unions indicated that, since 2005, the majority of these firms' annual volume of new lending in high LTV loans (i.e. greater than 90% LTV) has been below the market average.<sup>3</sup> Therefore, we do not expect that the impact on small and micro-lenders would be significantly different than the impact on larger firms.
39. The application of any rule to a class of firms would be proportional to the systemic relevance of those firms. If the FPC assessed that small firms are not systemically important, then, in line with their requirements to have regard to proportionality, they could apply a de minimis threshold to carve out these firms. The choice of the level and basis (volume or value) of the threshold is not included in the legislation but is rather left at the FPC and regulators' discretion given it depends on the calibration the FPC decides to use. As mentioned earlier, following the FPC's recommendation on LTI limits in June 2014, the PRA defined the de minimis threshold on both a volume and value basis to ensure that the rule is proportionate. This removed 13 small and micro-businesses from the scope of the regulation and the calibration was such that the remaining 20 were not at all affected by the limit (i.e. they were already operating within the FPC's recommended LTI limit).
40. We do not expect non-financial small and micro-businesses to be affected by the rule, as mortgage borrowing does not represent a major source of funding for them. Unfortunately, we are unable to obtain precise data on the proportion of small and micro-businesses that use mortgage borrowing as a major source of funding. However, according to the 2013 Q4 Finance Monitor<sup>4</sup> there were approximately 1.1 million small (i.e. between 10 and 49 employees) and micro (i.e. up to 10 employees) businesses in the UK in 2013. Of these, micro-businesses tend to rely less than small businesses on external finance. Overall, SMEs as a sector use more credit cards and bank overdrafts than bank loans or commercial lending. Therefore, given the limited reliance of small and micro-businesses on residential mortgages we do not expect that an LTV limit will materially affect their ability to access funding. Furthermore, business lending secured on residential property would not be in scope of LTV limits.

### *Costs to the economy*

41. A binding LTV limit would directly affect the amount and distribution of mortgage lending. Lenders might increase the price of mortgages above the threshold or reject more applicants. Borrowers may respond to higher pricing and/or the signal of an FPC policy with lower demand for mortgages above a threshold. Therefore, in the short-run, in response to a tightening of policy, lenders might extend fewer mortgages above the LTV threshold while borrowers could choose to take a smaller loan and/or purchase a cheaper property in order to reduce their LTV to below the threshold. That is, in the short-run, an

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<sup>3</sup> Since 2005, the share of the flow of lending above 90% LTV averaged around 20% for the whole market.

<sup>4</sup> SME Finance Monitor Q4 2013 <http://www.sme-finance-monitor.co.uk/>

FPC policy could result in either fewer loans being extended and/or smaller loans being extended than would have been the case without the policy.

42. Some borrowers might delay: instead of entering at a higher LTV they could save for more time and at a later date purchase a property at a lower LTV, below the threshold.
43. In addition to any impact on the economy via the impact on lending, there could also be an impact from lower housing investment due to a lower number of house purchases which could also impact associated firms (for example, estate agent fees might be impacted). Again, some of this impact would be a postponement rather than a permanent effect.
44. Modelling of these effects is uncertain. The FPC has presented an illustrative analysis of how a flow limit of 10% of mortgages above 90% LTV might have affected the mortgage market in 2006/07 in its draft policy statement. It must be stressed that under different economic conditions the results could vary significantly.
45. In 2006–2007 the share of the flow of lending above 90% LTV was around 16–17%. If an LTV limit had been at place during this period at 90% LTV with a 10% share of flow permitted above, then the FPC analysis suggests that there would have been roughly 200,000 fewer mortgages extended (roughly 10% of all mortgages extended in that period). Lower lending is associated with lower spending and thus GDP. In addition, fewer housing market transactions would have led to less housing investment. The FPC judges that the cost to GDP might have been about 0.15–0.3% of the level of GDP at the end of 2007.
46. There are feedback effects in the housing market between credit and house prices. A reduction in demand for housing may cause house price growth to moderate. This may in turn reduce both the supply and demand for credit, amplifying the direct impact of LTV tools on mortgage credit supply, and hence further on house price growth which could negatively impact GDP as reduced credit is associated with lower GDP growth. Given the complexity of modelling these feedback effects, they were not incorporated into the illustrative scenario.

*Impact on market structure*

47. The UK mortgage market is concentrated with the 6 biggest lenders currently holding 81% of total annual new residential lending, up from an average of around 70% between 2005 and 2007. The same also holds for the high LTV new lending market, with the main 6 lenders currently issuing 81% of new mortgages at LTV above 90% (see table 1 below). LTV lending above 90% in this context is being used to represent high LTV lending for the purposes of this impact assessment. It does not represent the Government nor the FPC’s view on the potential threshold for high LTV lending.

Table 1 – Market share of the 6 biggest UK lenders

	Top 6 Market Share	Top 6 >90% LTV Market Share
2005	73%	73%
2006	72%	69%

<b>2007</b>	69%	63%
<b>2008</b>	78%	70%
<b>2009</b>	87%	82%
<b>2010</b>	86%	86%
<b>2011</b>	85%	80%
<b>2012</b>	81%	77%
<b>2013</b>	81%	81%

48. An LTV limit might affect competition in the UK mortgage market via its effect on mortgage supply and prices. The limit will introduce a constraint to each lender's supply of high LTV mortgages, pushing those lenders that are above or close to the limit to rebalance their mortgage portfolio by either reducing their flow of high LTV loans or increasing the flow of low LTV loans.
49. Assuming that all other components in the market remain constant and assuming firms start with similar profitability, such actions might push the price of high LTV loans higher and low LTV loans lower, widening the price wedge between high and low LTV lending. How firms will be affected by the changes in pricing depends on the level of exposure of their portfolio on high LTV lending. The further a firm is above the LTV limit the harder it will find it to rebalance its portfolio and maintain sufficient profitability to preserve its presence in the high LTV section of the market.
50. The role of the intermediaries (who may play a role in rebalancing portfolios) will be key to the effectiveness and speed of adjustment of the lenders' portfolios. The impact on borrowers will depend on whether they will be able to get the mortgage they want or not. In the case of a non-binding (in aggregate) LTV limit, theoretically all borrowers should be able to get a mortgage, by finding a lender that has capacity to grant high LTV loans. However, they might have to pay a higher price. If the limit is binding (i.e. aggregate demand is more than supply) then some borrowers will not be able to get a mortgage and they will have to either increase their deposit or find a cheaper property. Overall, as discussed above, in the short-run a binding LTV limit could result in either fewer loans and/or smaller loans.
51. At end of 2013, there were 3913 products on offer, of which 617 (16%) were on 90% or greater LTV.<sup>5</sup> The intention of an LTV limit is not to prohibit the offer of these products; therefore we do not expect a direct impact on the variety of the products offered. However, as supply would be constrained, it is possible that some firms might decide to withdraw from the high LTV market.

#### *Overall cost*

52. Any estimate of the impact of a policy is dependent not just on the calibration of the policy (the threshold and share permitted above that threshold) but also on the outlook for the housing market at the time it is deployed.

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<sup>5</sup> MoneyFacts data as at end 2013.

53. However, we have provided an illustrative example of one arbitrary calibration, whereby applying a 90% LTV with a 10% share of flow permitted above during 2006–2007 results in a cost to GDP of around 0.15–0.3% of the level of GDP at the end of 2007. This estimate is purely illustrative of one particular calibration over a specific time period and does not represent the Government’s view on how the FPC would act. The transitional costs, as mentioned earlier would be minimal.

### Overall Benefits

54. As discussed earlier, there is empirical evidence (based on UK as well as US data) on the existence of a positive relation between high LTV lending at the time of a mortgage origination and subsequent mortgage default. Limiting the number of high LTV mortgages issued is therefore likely to reduce the share of mortgages that end up in arrears or default. At the same time, the current LTV reduction that is likely to occur would cause lower losses to lenders in the case of default. These effects are likely to be particularly strong in the event of a generalised fall in property prices, therefore reducing the likelihood of simultaneous losses at several lenders and hence increasing resilience of the financial system.

55. Therefore, using the earlier illustrative scenario where the FPC sets an LTV limit during 2006–2007 at 90% LTV with a 10% share of flow permitted above, we would expect 200,000 fewer high LTV mortgages. Given that this was roughly 10% of all mortgages extended during this period, we would expect a significant positive impact on resilience of the financial system. Bank’s balance sheets would have a lower proportion of mortgages that are likely to default and in the case of default, banks would face lower losses. This would reduce the probability that a shock to the UK housing market could result in a systemic financial crisis. The National Institute of Economic and Social Research (NIESR)’s global economic model of the world economy (NiGEM), modified to include a sub-model of the UK banking sector, estimates that a permanent reduction in the probability of a crisis occurring of just 1% would lead to an expected GDP increase of £4.5bn per annum in net present value terms.

56. Studies on US data have found that high LTV lending is associated with large falls in consumption and employment during housing busts, as this type of lending tends to amplify the fall in housing wealth due to falls in house prices.<sup>6</sup> Limiting high LTV lending would therefore reduce some of the impacts on consumption, employment and ultimately GDP associated with housing busts.

57. Through a reduction in the likelihood and severity of financial crises, the housing tools are likely to have substantial positive benefits for the expected level of trend UK GDP over the medium term. Dell’Ariccia et al (2012) show that the use of macroprudential instruments decreases the probability that booms end up in a banking crisis by about 20%. Indeed, across countries more than two thirds of the 46 systemic banking crises (for which house price data are available) were preceded by housing boom–bust cycles (Crowe et al (2011)).

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<sup>6</sup> Mian and Sufi (2014)

58. The FPC would maintain a policy statement setting out the indicators that it looks at when assessing risks from the housing market, and a view on the circumstances in which a calibration should be changed, or a tool removed.
59. The FPC would periodically review the parameters of the tool based on its risk assessment, including a set of indicators.<sup>7</sup> Therefore, if the FPC judged that risks to financial stability had receded, it could revise its policy by loosening or removing a limit. Thus the policy would only be active when the FPC judged there were ongoing systemic risks.

### Net impact

60. As mentioned in the introduction of the cost–benefit analysis section, it is impossible to quantitatively ascertain the net impact of the FPC being able to use these powers. Furthermore, it would be misleading to base the net impact on one illustrative scenario.
61. However, it is important to assess the impact of each of the FPC’s calibrations when they are used and as such the FPC is required by the Financial Services Act 2012 to publish a cost–benefit analysis, where practicable, when using these powers and it would be specific to the calibration chosen at the time.
62. The FPC can only use these powers to combat risks to financial stability as the build–up of systemic risks can result in extremely costly financial crises. Given that we would expect the FPC’s actions to reduce systemic risk in a way that is proportionate, we believe that they would have a very positive net impact as even a reduction in the probability of a crisis occurring of just 1% would lead to an expected GDP increase of £4.5bn per annum in net present value terms. Furthermore, the FPC’s secondary objective is to support the Government’s economic objectives and therefore it will take into account the impact of its policies on economic growth for example.

### Risks and assumptions

63. The legislation proposed gives the FPC the power to direct the PRA and FCA to impose a flow limit. The quantitative estimates illustrated above are for a particular example of activating such a policy. They are illustrative of a specific scenario only – the impact could be substantially smaller if a policy was calibrated not to bind, or larger if a policy was calibrated to constrain the market by more than assumed in the scenario. The FPC is required to weigh these costs against the benefits of a policy as part of its cost–benefit analysis.
64. The quantitative estimates of the impact on the economy have captured only the short–run costs. The benefits are well understood but difficult to quantify, and come over an uncertain time horizon. In particular there are a number of feedback mechanisms that the quantification does not capture:

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<sup>7</sup> For instance, the analysis supporting the June LTI limit recommendation identified a continuation of the build–up in high LTI lending as a source of risk for the UK financial sector, but judged that high LTV lending does not represent a systemic vulnerability or at least one requiring an immediate FPC action.

- There may be some borrowers who do not enter the market in the absence of a policy but who would if a policy causes house prices to rise by less. These borrowers are not modelled in this work.
  - Both lenders and borrowers may act differently in the face of an FPC policy. For example, lenders may choose to operate with a buffer; borrowers may view a policy as a signal to limit their own exposure to below a threshold; and investors driven by expectations of capital gains may have less incentive to enter the market.
  - The amplification effect of the collateral channel has not been captured. The collateral channel occurs as housing is the main source of collateral in the real economy and can give rise to a self-reinforcing loop of rising house prices and credit growth i.e. as valuations increase, rising wealth for existing homeowners and higher collateral values for lenders can increase both the demand and supply of credit, feeding back into higher valuations. This amplification mechanism works in reverse during a downturn.
65. The LTV limit will be only applied to regulated entities (either by the PRA or the FCA). The application of these measures could create incentives for regulatory arbitrage, with risky activities migrating to unregulated lenders. However, if the FPC uncovered evidence of this behaviour emerging, it could issue a recommendation to HM Treasury to have the regulatory perimeter extended.
66. Borrowers could circumvent the LTV limit by topping up mortgage loans with unsecured loans. Monitoring total debt levels would help identify any build-up of risk due to this behaviour.
67. The assumption about the FPC's actions is a key assumption in this assessment. The use of the LTV limit will be a decision for the FPC that the Government cannot forecast. Furthermore, these decisions will be informed by the outlook for financial stability and other contextual factors at the time. Therefore the quantitative scenario presented is purely for illustrative purposes.
68. The possible policy actions of the FPC are too numerous and it is not proportionate to model them all, so this analysis considered a particular calibration and should not be considered a likely policy path.

### **DTI Limits**

69. A DTI ratio for a new mortgage is calculated as the ratio of the mortgage value and the applicant's stock of existing mortgage and non-mortgage debt (e.g. unsecured lending) to the applicant's income.
70. A DTI limit sets two parameters and specifies that, over a given period of time, no more than a specified proportion of new mortgages originated by a lender can have DTI ratios above a certain level. If the specified proportion is set to zero then the tool operates as a hard cap, where all mortgages with DTI ratios above a certain level at origination are prohibited. If the specified proportion is set at above zero this allows for some lending above the threshold to be extended.



71. A DTI limit works by limiting the value of the loan that a lender can extend, relative to the borrower's income, given all other existing borrower's credit commitments. In doing so, it can, all else equal, lower the probability of default of borrowers. An increase in highly indebted households can pose risks to the financial system directly (if borrowers eventually prove unable to service their debts and default on their mortgage) or indirectly (if, in struggling to service their debts, households reduce consumption and therefore put downward pressure on wider economic activity). Imposing limits on lending at high DTI ratios will indirectly limit any increase in aggregate household indebtedness. By reducing demand for credit, a DTI limit (similarly to an LTV limit) would help reduce house price growth (both current and expected) and help tame the price-credit loop. When house prices rise, home owners are encouraged to take on more debt relative to their income, both in the case they borrow to move to a different property and if they are not movers.<sup>8</sup>

### Costs

72. This section describes the costs qualitatively and provides quantitative estimates where practicable and proportionate.

#### *Costs to the regulators*

73. The extended PSD<sup>9</sup> that comes into force in January 2015 (and is not part of the proposed legislation) will include the information necessary for enforcing and monitoring compliance with the DTI limit. Specifically, the extended PSD will include the outstanding mortgage balance<sup>10</sup> together with total outstanding credit commitments<sup>11</sup>. Moreover, the extended PSD will include additional income data besides the currently recorded 'total gross income entry'. Specifically, 'gross basic pay and other income from main job'<sup>12</sup> and 'gross income from self-employment and other income for self-employed borrowers' will be individually included and provided on a basis that is consistent with the definition of income that lenders use in their affordability assessment (where relevant). Monitoring of the limit would be part of the "business as usual" supervisory practices. Therefore, there will be no additional direct cost to regulator.

#### *Direct costs to regulated businesses*

74. Given that all regulated lenders will already be required to provide the data necessary for monitoring the DTI limit as part of the extended PSD data collection, there would not be additional costs to firms for collecting that data. However, each time the FPC uses the tools and specifies a calibration, firms may need to make modifications to their existing rules/internal policies given that they may not all calculate the DTI ratio, as specified by the FPC, when assessing mortgage affordability. The consultation responses suggest that

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<sup>8</sup> Empirical evidence supporting this effect includes Mian and Sufi (2011),

<sup>9</sup> <http://www.fca.org.uk/static/documents/consultation-papers/cp13-02.pdf>

<sup>10</sup> Defined as interest bearing balance of the mortgage outstanding at the end of the reporting period (including arrears, fees and charges to the loan)

<sup>11</sup> Examples of credit commitments include loans, credit cards and hire purchase. This item will also include mortgages on second homes (unless they are self-funded. However, it is also likely to include student debt that is excluded from DTI limit.

<sup>12</sup> 'Other income' includes bonus and overtime

some firms will already monitor this so that the administrative costs to these firms will be minimal. However, even though the data to calculate the ratios will be available from 2015, others respondents will be required to amend internal policies to ensure they record and monitor the DTI ratios which could result in an administrative cost. Based on discussions with industry, we would expect an upper bound estimate of this one-off administrative cost to be approximately £10 million across the whole industry. However, this administrative cost applies if the FPC decides to use a DTI ratio. The FPC could plausibly use its power of direction to set a LTI limit (an LTI being a subset of DTI) and therefore there would be no administrative cost as firms already record and monitor LTI ratios. As we cannot predict the FPC's actions, we have not included this in the final set of monetised costs and benefits. It is also important to note that the FPC would be required to conduct a cost-benefit analysis, where practicable, each time it specifies a calibration and ensure it takes accounts of any proportionality implications.

75. If the regulation required firms to issue less high DTI lending, the smaller volume and value of new lending would reduce the profitability of the affected firms, including via a lower income from fees and other charges. The impact would be greater for lenders that rely mainly on high DTI lending and that cannot alter their business model. Currently, there is no data available to quantify these potential costs.

#### *Small and micro-business assessment*

76. As discussed in the LTV section, the impact of the DTI limit on small and micro-lenders (33 as of 2013) will crucially depend on the FPC's calibration. Furthermore, some might be excluded by the rules via the implementation of a de minimis threshold if the FPC or the regulators assessed that the impact on these institutions is disproportionate as was the case when the PRA implemented the FPC's LTI recommendation.
77. We are unable to assess the proportion of the 33 small and micro-lenders that are likely to be impacted by DTI limits as DTI-related data will only be available from 2015 onwards. We do not expect the data to present a significantly different conclusion from that on LTV and therefore would not expect that the impact on small and micro-lenders would be significantly different than the impact on larger firms. In any case, the number of small and micro-lenders affected by the DTI limit will depend on each lender's business model, the specific calibration and implementation by the regulators.
78. The reliance of non-financial small and micro-businesses on residential mortgage lending is limited (see the evidence provided in LTV section). Therefore we do not expect that a DTI limit will have a significant effect on the ability of these firms to get funding. However, we do not have loan-level data on debt and therefore we cannot assess how many business loans will not be offered due to a DTI limit at this stage (for example if an entrepreneur took out a mortgage to fund their business). This will become feasible in 2015 once the extended PSD is effective. Furthermore, business lending secured on residential property would not be in scope of DTI limits.

## *Costs to the economy*

79. Similar to the impact of an LTV limit, a binding DTI policy would directly affect the amount and distribution of mortgage lending. Lenders might put higher pricing on mortgages above the threshold or reject some applicants. Borrowers, particularly those above the DTI threshold, may respond to the policy announcement (including the potentially implied higher pricing) with lower demand for mortgages and/or purchase of a cheaper property. Therefore, in the short-run, an FPC decision to set a DTI limit could result in either fewer loans being extended and/or smaller loans being extended than would have been the case without the policy.
80. Again, much like the LTV impact, a DTI limit may also result in lower housing investment due to a lower number of house purchases.
81. In June 2014, the FPC recommended that up to 15% of the flow of new lending was permitted with an LTI ratio above 4.5. It estimated that the LTI limit would have no impact on the central outlook for housing. The central outlook assumed that annual house price inflation would continue at the levels in June (approximately 10%) until mid-2015, following which it would slow to a growth rate that is broadly in line with income from 2016. Income would grow near its long-run average of around 4%. By Q2 2015, total mortgage approvals would pick up to an average level of 270,000 per quarter for the remainder of the scenario period – somewhat below their 1987–2007.
82. The FPC's upside scenario assumed mortgage approvals to rise quickly to 350,000 per quarter (a greater proportion of which are at high LTIs) and annual house price inflation to be around 15%. It also assumed that income growth would be the same as the central scenario. The FPC estimated that their LTI limit would be binding in the upside scenario. Specifically, there would be roughly 200,000 fewer mortgages extended over the next three years than in the absence of the policy (of a projected 3.5 million mortgages over the three years) and that net lending would be reduced by 2.5% of the stock of lending over the three years.
83. Lower lending is associated with lower spending and thus GDP. In addition, fewer housing market transactions mean less housing investment. The FPC estimated that this would reduce GDP by roughly 0.25% at the three-year horizon. Therefore, we could expect a DTI limit to have a similar impact if it only covered mortgage lending (therefore acting as an LTI limit), but that the impact on GDP could be greater if this encompassed other unsecured lending (e.g. credit card debt).
84. A reduction in demand for housing may cause house price growth to moderate. This could reduce both the supply and demand for credit, amplifying the direct impact of DTI tools on mortgage credit supply, and hence further on house price growth which could negatively impact GDP as reduced credit is associated with lower GDP growth. The FPC estimated that its June 2014 policy would slow house price growth in the upside scenario by roughly 5 percentage points.

### *Impact on market structure*

85. A DTI limit could potentially affect mortgage lenders' business models and thus have some impact on competition in those markets that the firms supply. The size of the impact will depend on whether the rule is binding or not.
86. If the DTI limit is non-binding (i.e. aggregate demand is less than supply) all borrowers should be able to get the mortgage they want but maybe at a higher price. Firms that predominantly underwrite high-DTI lending and for whom the DTI limit is binding will have to immediately revise their business strategy to comply with the rule. Firms that currently either provide mortgages and have capacity to do further lending in this segment, or do not operate in this market segment at all will be able to provide loans to customers at least until they reach the DTI limit. Overall, firms with spare capacity will have an opportunity to obtain market share, changing the competitive landscape.
87. In a binding condition (i.e. aggregate demand is greater than supply) some consumers will not be able to get the mortgage they want from the existing lenders in the market and they will have to either reduce the amount they want to borrow or not buy a property. New firms might enter the market as excess demand might lead to higher prices making supply to the market profitable.
88. The intention of the DTI limit is not to prohibit the offer of high DTI products; therefore we do not expect a direct impact on the variety of the products offered. However as supply would get constrained, it is possible that some firms might decide to withdraw from the high DTI market.

### *Overall cost*

89. Any estimate of the impact of a policy is dependent not just on the calibration of the policy (the threshold and share permitted above that threshold) but also on the outlook for the housing market at the time it is deployed. This quantitative estimate is therefore illustrative of the impact of one particular setting of policy on a specific outlook for the housing market.
90. In the central outlook for the housing market articulated by the FPC in June 2014, their LTI flow limit was estimated to have no impact. The estimated impact of the FPC's June 2014 LTI policy on their 'upside' outlook was a reduction in GDP by approximately 0.25% from 2014-2017. The estimates include the short-run impact on GDP due to a reduction in lending and lower housing market activity (as outlined above). It does not quantify how much of that impact would be unwound over the medium term or any feedback effects from an impact on house prices.
91. For the LTV section, we were able to look at the share of high LTV lending (assuming a 90% LTV). DTI data at a loan-level will become available in 2015 Q1. The only DTI data currently available at a disaggregated level are those from the annual Bank of England survey of household balance sheets carried out by NMG Consulting. They refer to the outstanding

stock of total lending as proportion of gross income as reported by survey respondents.<sup>13</sup> Therefore, this measure is not directly comparable to the DTI on new lending that is part of the direction power toolkit.

92. Nonetheless, we are able to use the information from the latest publicly available NMG survey (2013) to provide some indicative figures. The survey indicates that 11% of households with mortgages had high DTI (above 4.5) in 2013, representing around 26% of total household debt.<sup>14</sup> Households at high DTI reported on average lower monthly disposable income and saving but higher monthly debt repayment (on both mortgage and unsecured debt) compared to the survey average.<sup>15</sup>

### Overall Benefits

93. As mentioned in the above discussion on the benefits of LTV limits, through a reduction in the likelihood and severity of financial crises, the housing tools are likely to have substantial positive benefits for the expected level of trend UK GDP over the medium term. The use of macroprudential instruments decreases the probability that housing booms result in a banking crisis by about 20% and across countries more than two thirds of the 46 systemic banking crises (for which house price data are available) were preceded by housing boom–bust cycles.
94. A key channel of risk to financial stability and GDP from the housing market arises from the relationship between the housing cycle and household indebtedness. House price booms associated with rising household debt are more likely to end up in costlier recessions.<sup>16</sup> Furthermore, rapid growth in aggregate credit is strongly associated with subsequent economic instability and the risk of financial crisis.
95. Imposing limits on lending at high DTI ratios can reduce the indirect threat to financial stability from the build–up in household indebtedness during the upswing of a housing or credit cycle. Increased household indebtedness may be associated with a higher probability of household distress, and subsequent falls in consumer spending, ultimately impacting GDP. This arises from the fact that households with the highest DTI ratios tend to spend a greater proportion of their income on consumption than less indebted households. During the recent financial crisis, the share of income attributed to consumption fell sharply for households with higher DTI ratios. There is also evidence internationally that higher household DTI ratios were associated with larger falls in consumption. Falls in consumption can in turn weigh on wider economic activity.
96. Therefore, using the FPC’s June LTI recommendation, in the upside scenario (where momentum in the housing market increases) we would expect 200,000 fewer high LTI

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<sup>13</sup> For details of the 2013 survey, see *The financial position of British households: evidence from the 2013 NMG Consulting survey*, Bank of England Quarterly Bulletin 2013 Q4.

<sup>14</sup> Households with high DTI also had high LTI.

<sup>15</sup> Survey responses are weighted to be representative of the UK population.

<sup>16</sup> See *Financial Policy Committee statement on housing market powers of Direction from its policy meeting, 26 September 2014*, available at

<http://www.bankofengland.co.uk/financialstability/Documents/fpc/statement021014.pdf>

mortgages. Given that this was projected to be around 6% of all mortgages extended during this period, we would expect a positive impact on financial stability. High LTI lending carries a higher probability of default so the FPC concluded that the limit would contribute to a safer and sounder banking system. Furthermore, as mentioned above, less indebted households would result in lower volatility in household expenditure and therefore less severe financial crises. A safer and sounder banking system alongside reduced macroeconomic volatility could reduce the probability of a crisis. A permanent reduction in the probability of a crisis occurring of just 1% would lead to an expected GDP increase of £4.5bn per annum in net present value terms.

### Net impact

97. As with the LTV limit, it is impossible to quantitatively ascertain the net impact of the FPC being able to use these powers. Nonetheless, given the benefits of reducing the probability of crises and the huge costs of such crises, we would expect the net impact to be strongly positive. The transitional costs, as mentioned earlier, depending on how the FPC uses its power of direction, could have administrative costs on some firms.

### Risks and assumptions

98. The legislation proposed gives the FPC the power to direct the PRA and FCA to impose a flow limit. The quantitative estimates illustrated above are for a particular example of activating such a policy. They are illustrative of a specific scenario only – the impact could be substantially smaller if a policy were calibrated not to bind, or larger if a policy were calibrated to constrain the market by more. The FPC has a duty to weigh these costs against the benefits of a policy as part of its cost–benefit analysis.

99. Similar to the LTV section, the quantitative estimates of the impact on the economy has captured only specific short–run costs. The benefits are explained but difficult to quantify, and come over an uncertain time horizon.

100. Like an LTV limit, a DTI limit may be raised in an upswing (with credit growth outstripping income growth) if the FPC judged it to be a systemic risk. The limit could be loosened or removed when household indebtedness was judged to be sustainable once more.

101. Compared to LTV limits, a DTI limit, defined to include a broad range of debt instruments, would present less scope for borrowers to try to avoid the limit by switching type of borrowing. However, lenders may have an incentive to look at broader measures of income. Careful monitoring of firms' lending criteria would help reducing the risk of this leakage.

102. The assumption about the FPC's actions is a key assumption in this assessment. The use of either of these macroprudential tools will be a decision for the FPC that the Government cannot forecast. Furthermore, these decisions will be informed by the outlook for financial stability and other contextual factors at the time. Therefore the quantitative scenario presented is purely for illustrative purposes.

103. The possible policy actions of the FPC are too numerous and it is not proportionate to model them all, so this analysis considered a particular calibration and should not be considered a likely policy path.

## **Interactions**

104. At any point in time, the decision to implement a DTI or LTV limit, as well as the calibration of the relevant parameters, would be function of the FPC's assessment of systemic risk. There might be cases when the risk assessment warrants a joint application of the tools, given that they both aim at mitigating the risks from household indebtedness but from different angles (DTI and LTV are both capable of affecting probability of default, while LTV limits are likely to reduce loss-given-default). Norway and South Korea are examples where the measures have been jointly implemented. In particular, implementing a DTI limit jointly with a LTV limit may be helpful in containing any leakage from the LTV policy, such as the risk of an excessive build-up in unsecured lending.<sup>17</sup> For the UK, an assessment of the potential effects of jointly applying the tools is currently limited by data availability issues (see the above discussion on DTI). To get an idea of the size of the market that could possibly be affected, the NMG survey suggests that, in 2013, 9.5% of the mortgages with DTI above 4.5 had an LTV above 90%.<sup>18</sup>

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

105. The Government has performed this impact assessment on the basis of comparing the "do nothing" scenario to implementing the Government's preferred option.

106. As mentioned earlier, there are several different calibrations that the FPC could apply when using DTI or LTV limits and it is impossible to model them all. The Government believes that providing a quantitative analysis based on a particular calibration is proportionate and useful in illustrating the costs and benefits. However, given that it only provides the costs and benefits for that particular calibration, we have concluded that the cost and benefits of this legislation are not monetisable.

107. As also discussed earlier, the PSD data that will become available from 2015 Q1 will have the necessary data to analyse and monitor the effects of DTI and LTV limits. But currently, only survey data on secured and unsecured levels of outstanding borrowing are available and they are available at a household rather than loan level. Therefore, while a quantitative analysis on the impact of LTV limits is currently possible (and provided in the LTV section), we can provide only a qualitative assessment of the impact of a DTI limit (or the joint impact of a DTI and LTV limit) even for cases only considered illustrative.

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<sup>17</sup> In Korea, the DTI limit was implemented three years after the LTV to stop people from purchasing multiple houses or putting them in the names of family members

<sup>18</sup> However, the DTI and LTV definitions in the survey are different than those used in the tools. The survey measures are stock measures, referring to levels of outstanding debt. Moreover, the property value measure used in the LTV calculation refers to the current property value.

## Wider impacts

108. The wider impacts, as with any impact, will depend specifically on the calibration the FPC decides to apply. In making this decision the FPC is required to look at whether the direction will have a disproportionate impact on certain types of firm or consumer in the market.

### Statutory equality duties

109. 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. The Government believes that in all but one case, no relevant issues arise.
110. The case where there may be an issue is where the FPC selects a calibration and this may disproportionately impact young borrowers who are less likely to have accumulated savings. However, it is important to note, as mentioned above, that the FPC is required to look at whether the direction will have a disproportionate impact on certain types of firm or consumer in the market (e.g. young borrowers).
111. The measures are likely to have a larger impact on younger borrowers. The NMG survey suggests that over 50% of households with outstanding total debt over 4.5 times gross income are between 25 and 44 years old. Moreover PSD data indicate that 58% of new mortgages in 2013 with an LTV above 90% were issued to 25 to 34 year olds and approximately a third of new mortgages in 2013 with an LTV above 95% were issued to 25 to 34 year olds. However, although the measures will affect the ability of younger households to borrow at high DTI/LTV ratios, they will also have the benefit of helping to prevent the build-up of riskier debt among these households.
112. Moreover, the FPC has a statutory obligation to exercise its functions with regard to the principle of proportionality.
113. Furthermore, the FPC will only use LTV/DTI restrictions if they consider this to be necessary to address systemic risks. 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 costs. Reducing household indebtedness is likely to be associated with a lower probability of household distress, resulting in lower consumer spending and GDP volatility.
114. Lastly, less frequent financial crises benefits everybody through higher GDP and therefore, the benefits are distributed without equalities impacts.



### Environmental, social and sustainable development impacts

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

### One in Two Out rule

116. The FPC, in accordance with its statutory objective, would only use these tools if they considered it to be necessary to address financial core stability risks (i.e. financial systemic risk under the OECD (2004) definition). Moreover, the FPC is required to use its powers in a proportionate way to achieve its goals. Therefore, we believe these powers to be out of scope of the Government's One in Two Out rule for new regulation.

### Summary and preferred option

117. The Government believes the benefits of providing the FPC with powers of direction over DTI ratios and LTV ratios in respect of the owner-occupied mortgage market clearly outweigh the potential costs.

118. The Government intends to use Section 9L of the Bank of England Act 1998 (as amended by the Financial Services Act 2012) to make secondary legislation prescribing macroprudential measures for the purposes of section 9H.

119. The Government does not intend to review this legislation, but notes that the FPC is required to produce explanations of its actions and keep them under review.

120. The Act also requires that the FPC must publish an explanation of why it has chosen to exercise its power of direction, the way it has chosen to exercise the power and how this action is consistent with the Committee's statutory objectives and the FPC's requirement to consider the proportionality of its actions. These explanations must include a cost-benefit analysis where the Committee believes it is reasonably practicable to produce such analysis. The Government is strongly in favour of these explanations including cost-benefit analyses and expects the FPC to require a high bar for not producing these estimates. Explanations and cost-benefit analysis by the FPC are a key accountability mechanism for the FPC.

121. Furthermore, the Act requires that the FPC reviews any outstanding directions given to the PRA or FCA within a year of the direction being given and then at least annually following the initial review. The purpose of these reviews are to consider whether the direction ought to be revoked.

122. Explanations and reviews by the FPC will be published in the Financial Stability Report, which is produced by the Committee twice a year.