

Title: Loss Allocation Rules for Central Counterparties IA No: HMT 1303 Lead department or agency: HM Treasury (HMT) Other departments or agencies: Department of Business, Innovation and Skills (BIS)	Impact Assessment (IA)
	Date: 18/6/2013
	Stage: Final Stage
	Source of intervention: Domestic
	Type of measure: Secondary legislation
	Contact for enquiries: Paul Clark HM Treasury
Summary: Intervention and Options	RPC Opinion: GREEN

Cost of Preferred (or more likely) Option				
Total Net Present Value	Business Net Present Value	Net cost to business per year	In scope of One-In, One-Out?	Measure qualifies as
-£6.98m	N/A	N/A	No	N/A

What is the problem under consideration? Why is government intervention necessary?

Similar to banks, clearing houses are a significant part of the financial system and clearly have the potential to be systemically important. Clearing houses are entities that help to better manage counterparty risk in financial transactions in their role as intermediaries between market participants, acting as the seller to every buyer and the buyer to every seller in the market. The UK, as part of wider international efforts, has taken steps to limit the likelihood and impact of a clearing house failing by introducing a new framework to facilitate the effective resolution of clearing houses as part of the Financial Services Act 2012. Further engagement between the financial authorities and clearing houses on recovery planning has seen the voluntary implementation (for some but not all business lines) of contractual agreements to distribute losses amongst members in the event that a clearing house is exposed to uncovered losses.

The Government thinks that such rules and recovery plans need to be in place for all clearing house products. As such, the Government recently consulted on proposals to make changes (via secondary legislation) to the recognition requirements (the 'operating conditions' under which clearing houses are licensed to operate in the UK) for clearing houses in the UK to make loss allocation rules mandatory. The UK financial authorities believe that such rules will significantly reduce the likelihood of a clearing house failing in a way that would constitute a threat to wider financial stability or potentially put public finances at risk through a resolution. Complementing this change, and to aid recovery and resolution planning, the Government also intends to make a change to the recognition requirements so as to stipulate that a UK recognised clearing house providing clearing services must have a recovery plan in place.

What are the policy objectives and the intended effects?

The Government's overall rationale for acting is to protect financial stability by ensuring that clearing houses which have the potential to be systemically important have robust recovery arrangements in place for restoring their business to solvency in the event that they encounter financial difficulty. These proposals are targeted at achieving this in line with the objectives of:

- strengthening the stability and resilience of the financial system by preventing contagion;
- reducing the likelihood of individual clearing houses threatening wider financial stability if they get into difficulties;
- ensuring the continuity of critical market functions provided by clearing houses; and
- ensuring that taxpayer interests are protected.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

The three broad options open to the Government to address the risks to stability posed by clearing houses experiencing financial difficulty are:

- Do nothing: The UK Government takes no action and instead relies on clearing houses' existing arrangements to deal with uncovered losses that could threaten their solvency.
- UK Action: The UK Government takes action now (i.e. ahead of the European process) to make changes, via domestic legislation, to the recognition requirements for clearing houses to make the introduction of loss sharing arrangements by clearing houses mandatory.
- European Option: The UK Government relies on an expected European-led process to introduce any recovery (including loss sharing arrangements) and resolution regimes for clearing houses.

Will the policy be reviewed? Yes If applicable, set review date: 1 August 2018

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 No	< 20 No	Small No	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, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.



Signed by the responsible :

----- Date: 23/07/2013 -----

Summary: Analysis & Evidence

Do Nothing Option

Description: The UK Government takes no action and instead relies on recognised clearing houses' existing arrangements to deal with uncovered losses that could threaten their solvency.

FULL ECONOMIC ASSESSMENT

Price Base Year 2013	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

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

Zero

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

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

Zero

Key assumptions/sensitivities/risks

Discount rate (%)

3.5

This option will provide the baseline against which the costs and benefits of the alternative policy options are analysed. That is, for the alternative options, we only identify and analyse the costs and benefits that are additional (i.e. incremental or marginal costs and benefits) to those that would have been incurred if no action were taken. The Do Nothing Option therefore has zero costs and benefits under this methodology.

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			In scope of OIOO?	Measure qualifies as			
Costs:	0	Benefits:	0	Net:	0	N/A	N/A

Summary: Analysis & Evidence

UK Action Option

Description: The UK Government takes action now (rather than waiting for European action) to make changes, via domestic legislation, to the recognition requirements for clearing houses, to make the introduction of loss sharing arrangements by clearing houses mandatory.

FULL ECONOMIC ASSESSMENT

Price Base Year 2013	PV Base Year 2013	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: -8.39	High: -5.56	Best Estimate: -6.98

COSTS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	5.56	1	0	5.56
High	8.39		0	8.39
Best Estimate	6.98		0	6.98

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

Key monetised costs of these proposals would fall primarily on clearing houses and their members. Clearing houses would incur the costs of drafting loss allocation rules and recovery plans, consulting with their participants and implementing the finalised arrangements. Clearing house members will bear the cost of responding to the clearing houses' consultations, if they elect to respond, and assessing the potential impact of implementation on their business.

For these key groups, these actions will involve one-off expenditure on legal fees, compliance, marketing and account management in year 1. We estimate an aggregate upper cost of £100,000 to £200,000 for the five clearing houses, and a cost of up to £20,000 to £30,000 for each of the 273 clearing house memberships, giving a total cost to members of up to £5.46m to £8.19m. The estimated aggregate cost to industry (clearing houses and members combined) is up to £5.56m to £8.39m. Given that several clearing houses have already implemented loss allocation rules, many of these costs to clearing houses and clearing members have already been incurred and will not be repeated. As such, the costs set out above should be considered the high point of a range of possible costs.

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

The proposals will generate negligible non-monetised costs for the Bank of England. It will have to monitor and assess the compliance of clearing houses with the new recognition requirement but because the Bank of England already has existing supervisory arrangements for the relevant clearing houses, the new proposals will present only a marginal increase in the level of supervisory resource required.

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

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

The main benefits of the proposed reforms can be summarised as improved financial stability. It is extremely difficult to monetise this benefit as there is no precedent of a UK recognised clearing house failing. It is unlikely to happen but the impact would be significant given the volumes of money that clearing houses intermediate (for example, ICE Clear Europe has open positions of over €500bn in credit default swaps). The cost of a clearing house failure (and conversely the benefit of improved financial stability if the risk of failure is reduced) would not only be realised by the main affected groups but would be propagated through the financial system and the real economy meaning that it would affect a vast number of individuals and organisations. In these instances where benefits are non-monetisable, a qualitative assessment is made of their likely impact.

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

The introduction of requirements on recognised clearing houses to have loss allocation rules and recovery plans in place would reduce the likelihood of the failure of a systemically important recognised clearing house. This would provide benefits with respect to ensuring the continuity of the critical clearing functions provided by that systemically important firm and averting the threat of failure causing wider disruptions to the financial system and the real economy. Based on analysis by the Independent Commission on Banking (ICB), the illustrative cost of a financial crisis is estimated to be around £40bn per year in 2010 terms. It is assumed that the introduction of loss allocation and recovery arrangements by clearing houses would reduce the expected cost of future crises (dependent on the probability of occurrence and the expected impact) by helping to reduce the probability of clearing house failure and contagion within the financial system. While these benefits are non-monetisable, they would surely far exceed the monetised costs described above. Once these non-monetised benefits are taken into account, the net value of the policy is positive.

Key assumptions/sensitivities/risks

Discount rate (%)

3.5

It is assumed that each recognised clearing house would expend legal, compliance, marketing and account management costs in producing their loss allocation rules and recovery plans. It is anticipated that the legal costs would be the greatest costs, with the rest of the costs being administrative in nature. It is also assumed that each clearing member may elect to review the draft loss allocation rule and recovery plan for each clearing house with which it is a clearing member and that the clearing members may use both in-house and external legal advisers. The fact that several clearing houses have already implemented loss allocation rules (with member input) and therefore would not need to repeat this effort means that the calculated costs represent the high end of a wide range of possible costs.

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			In scope of OIIO?	Measure qualifies as
Costs: £6.98m	Benefits: N/A	Net: -£6.98m	No	N/A

Summary: Analysis & Evidence

European Option

Description: The UK Government relies on an expected European-led process to introduce any recovery (including loss sharing arrangements) and resolution regimes for clearing houses.

FULL ECONOMIC ASSESSMENT

Price Base Year 2013	PV Base Year 2013	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: Optional	High: Optional	Best Estimate: N/A

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	5.56	0	5.56
High	8.39	0	8.39
Best Estimate	6.98	0	6.987.3

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

The scale of these costs will depend on the timing and content of any future European directive or regulation and as such is subject to a high degree of uncertainty. For the purpose of this impact assessment we assume that European legislation will come in three years in a broadly similar form as that in the UK Action Option. Clearing houses and members will therefore incur one-off costs similar to the UK Action Option – only some years later. We assume that in real terms these costs in 2016 will be equal to the UK Action Option costs in 2013, as the same actions and services (legal advice, compliance etc) will be required in order for firms to adapt to the rules.

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

The proposals will generate negligible non-monetised costs for the Bank of England. It will have to monitor and assess the compliance of clearing houses with the new recognition requirement but because the Bank of England already has existing supervisory arrangements for the relevant clearing houses, the new proposals will present only a marginal increase in the level of supervisory resource required.

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

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

For the same reasons as outlined above for the UK Action Option, the benefits arising as a result of the proposed reforms will be difficult to monetise or will be non-monetisable. In these instances, a qualitative assessment is made of their likely impact.

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

These benefits are similar to those under the UK Action Option, except that they would be realised later (once any relevant European directives or regulations had been transposed in UK law) and are subject to a higher degree of uncertainty, as the content and timing of any European legislation in this area is uncertain. Once non-monetised benefits are taken into account the net value of the policy is likely to be positive for each year that the benefits are realised. However, as action is taken later than the UK Action Option, these net benefits are not realised until later. The net present value of the policy is therefore lower than the UK Action Option.

Key assumptions/sensitivities/risks

Discount rate (%) 3.5

It is assumed that once any relevant directive or regulation has been issued by the European Commission, (as under the UK Action Option) each recognised clearing house may expend legal, compliance, marketing and account management costs in producing compliant loss allocation rules and recovery plans. It is anticipated that the legal costs could be the greatest costs, with the rest of the costs being administrative in nature, which we do not expect clearing houses will need additional resources to deal with. It is also assumed that each clearing member may elect to review the draft loss allocation rule and recovery plan for each clearing house with which it is a clearing member and that the clearing members may use both in-house and external legal advisers. The fact that several clearing houses have already implemented loss allocation rules (with member input) and therefore would not need to repeat this effort means that the calculated costs represent the high end of a wide range of possible costs.

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			In scope of OIOO?	Measure qualifies as
Costs: £6.98m	Benefits: N/A	Net: -£6.98m	No	N/A

Introduction

Assessing the impact of the Government's proposals

1. Following the public consultation on resolution regimes for non-bank institutions in August 2012, the Government sought views from recognised clearing houses and their members in January 2013 on proposals to amend the recognition requirements for recognised clearing houses to make the introduction of loss sharing arrangements and recovery plans by these institutions mandatory.
2. This final proposal stage impact assessment sets out the case for these proposals and an analysis of their benefits, costs and likely impacts.

Scope

3. The proposals included in this impact assessment relate only to recognised clearing houses (RCHs) that are UK central counterparties¹ (CCPs).

Terminology

4. The costs and benefits identified for the policy proposals under consideration are classified as being either direct or indirect. Irrespective of whether costs and benefits are direct or indirect, their impact will also either be monetisable or non-monetisable. Monetisable costs and benefits are those that, given the current evidence, the Government is able to estimate.
5. As we highlight in later sections, some of the costs and benefits, whether direct or indirect, arising as a result of the proposed reforms will be difficult to monetise or will be non-monetisable. In these instances, a qualitative assessment is made of their likely impact.
6. Monetisation is difficult mainly because no UK CCP to date has suffered significant financial difficulty and there has been no intervention by the Government to date to resolve any UK CCP. This makes it

¹ 'UK clearing house' means a clearing house which has its head office or its registered office (or both) in the UK; which provides central counterparty clearing services; and in relation to which a recognition order is in force under Part 18 of FSMA 2000.

difficult to accurately put a figure on some of the likely impacts² of the proposal under consideration. Although parallels can be drawn from the failure of deposit taking institutions, central counterparties are fundamentally different in their structure and operation meaning that any such comparative assessments would be potentially spurious.

7. As such, in this impact assessment, while some of the costs of the proposals have been monetised, benefits of the proposal (and hence also the net value of the proposals) have not been monetised. In the absence of a monetisation we make a qualitative assessment of the proposals.

Structure of Impact Assessment

8. The summary sheet for this impact assessment presents the Government's proposals, the policy options considered and an economic assessment of these options. In line with impact assessment guidance, the cover sheet contains the monetisable and non-monetisable benefits and costs for the proposals put forward by the Government. Where monetisation of the impacts has not been possible, the analysis of the costs and benefits are presented alongside the discussion of the proposals.
9. The Evidence Base for the impact assessment is structured as follows:
 - I. Rationale for action by the Government
 - II. Policy objectives
 - III. Policy options considered
 - IV. Analysis of policy options
 - V. Conclusions from options analysis

Background

10. The recent financial crisis exposed taxpayers to significant costs stemming mostly from the need to bail out systemically important banking institutions to prevent their collapse from causing damage to the financial system and the wider economy. As the global economy has started to recover from the crisis, a wide-ranging programme of banking and wider financial sector reform is underway at European and global level.
11. However, banks are only part of the financial system. Clearing houses are entities that help to better manage counterparty risk in financial transactions in their role as intermediaries between market participants, acting as the seller to every buyer and the buyer to every seller in the market. Clearing houses therefore help to facilitate financial transactions, provide certainty to market participants and increase confidence within the market. Because they are so vital to the functioning of the market, the major UK-based clearing houses are considered to be systemically important.
12. Clearing houses are governed by robust regulatory arrangements and have in place a number of defences against failure. Members of a clearing house are required to post significant collateral against the value of their or their clients' positions, the level of which is based on the changing risk of the position taking account of plausible changes in market conditions. This is referred to as initial margin. Should any member default, their collateral is used to fulfil their outstanding obligations. If the posted collateral proves insufficient, CCPs have in place further reserves held to protect against failure. Each clearing house maintains a default fund, contributed to by members, which acts as a buffer against extraordinary losses. The capital a clearing house has in its own reserve may also act as protection. These existing funds and reserves are designed to be sufficient to protect a clearing house against most foreseeable financial shocks, such as the default of the one or two largest clearing members.

² Benefits in particular.

But they are finite. So in certain extreme circumstances, such as the default of several major clearing members, the existing funds and reserves could be exhausted.

13. The failure of a clearing house would pose significant risks to the operations of the financial system and be a potential source of contagion due to its significant financial exposures to other market participants. Trading would be disrupted in the markets served by the clearing house, and clearing members might not be able to access their collateral and default fund contributions for some time. For these reasons a failure would be an event of systemic importance. Furthermore, mandatory clearing obligations for over-the-counter (OTC) contracts under the Regulation on OTC Derivatives, Central Counterparties and Trade Repositories (commonly known as the European Market Infrastructure Regulation or 'EMIR') are expected to result in a significant increase in the volume of trades cleared through clearing houses, increasing the risk concentration, and hence further increasing their systemic importance.

Rationale for intervention

14. Owing to the potential systemic significance of clearing houses, the Government in August 2012 consulted on proposals to enhance the mechanisms available for dealing with their failure. Following this consultation, the Government brought forward legislative changes introducing powers to facilitate the resolution of UK CCPs within the Financial Services Act 2012. However, the best way of dealing with losses at a CCP that threatens to exceed its normal default protections is through provisions in the rules of that CCP.
15. Consistent with the preventative and recovery principles outlined in the Financial Stability Board's (FSB) Key Attributes for resolution regimes and the CPSS-IOSCO³ Principles for Financial Market Infrastructures, the UK has taken a number of steps to limit the likelihood of a clearing house failing and the Government having to take resolution action. These include discussions with clearing houses on recovery planning which will ensure that they have viable preventive measures for restoring their ability to operate as a going concern. Voluntary recovery planning has focused on encouraging clearing houses to have adequate rules in place for allocating uncovered credit losses amongst their members. These rules would be expected to supplement existing arrangements (posting of collateral, default fund contributions, capital) for managing financial shocks to the clearing houses, therefore preventing failure and ensuring service continuity. In response to efforts by the UK financial authorities clearing houses have, in most cases, begun the process of putting 'loss allocation rules' in place to allow for circumstances where losses exceed existing resources.
16. Whilst the voluntary adoption of loss allocation rules by UK CCPs is a welcome development, and one that has been strongly encouraged by the Bank of England, the Government still believes it is appropriate to make the adoption of such rules a recognition requirement for two reasons: firstly, to ensure that all CCPs implement loss allocation rules that cover all product areas they clear and secondly, to remove the potential for a CCP to decide to remove a loss allocation rule from its rulebook, or modify the rule in a way that undermines its effectiveness.
17. In the Government's response to its August 2012 consultation "Financial sector resolution: broadening the regime", the Government outlined its intention to build on the positive developments around loss allocation rules that are already taking place in the industry. The Government has therefore consulted⁴ on proposals to make changes (via secondary legislation) to the recognition requirements (the 'operating conditions' under which clearing houses are licensed to operate in the UK) for clearing houses in the UK to make loss allocation rules mandatory. This change is in addition to those under EMIR. It will sit alongside the EMIR regulations (which do not cover loss-allocation) and will stipulate that a CCP providing clearing services must have rules and arrangements in place which allocate losses that arise as a result of member default or otherwise, and which are in excess of the clearing house's available resources to cover such losses.

³ Committee on Payment and Settlement Systems (CPSS) and International Organization of Securities Commissions (IOSCO)

⁴ Informally by issuing a discussion document and inviting responses from the industry.

18. There was a consensus from respondents to the latest consultation that this proposed requirement for CCPs to have arrangements to allocate losses incurred as a result of member defaults is acceptable and proportionate. Respondents suggested that the proposed requirement to allocate losses incurred for reasons other than a member default ('non-default losses') is problematic. However, the Bank of England believes that these concerns are based on inaccurate assumptions over the scope and nature of the non-default loss aspect of the proposal.
19. The UK financial authorities believe that such rules will significantly reduce the likelihood of a clearing house failing in a way that would constitute a threat to wider financial stability or potentially put public finances at risk in the event of a resolution.
20. Complementing this change, and to aid recovery and resolution planning, the Government intends to also make a change to the recognition requirements to stipulate that a UK recognised clearing house providing CCP services must have a recovery plan in place. This is analogous to the requirement under Financial Services Act 2010 for banks to maintain recovery plans. The Government believes that the CCPs are likely to have given some thought to this issue given that the CPSS-IOSCO Principles for Financial Market Infrastructures state that 'an FMI should prepare appropriate plans for its recovery or orderly wind-down' (Principle 3 Key Consideration 4)⁵. It is also consistent with the objectives of the EMIR draft technical standards submitted by the European Banking Authority (EBA). Robust recovery plans enhance resilience to a shock by outlining the steps that would be taken to overcome an adverse set of consequences should they arise.
21. The provision by a UK recognised clearing house of information and analysis that facilitates resolution planning by the authorities is clearly a pre-requisite for effective use of the resolution regime for UK CCPs contained in the Financial Services Bill. We are of the view that this information and analysis should be obtained by the authorities from the CCP under existing UK recognised clearing house recognition requirements and Bank of England rules.
22. Respondents to the latest consultation noted concerns with the UK appearing to 'front run' international requirements on FMI recovery and resolution. Incompatible regulatory requirements would indeed be a problem were they to emerge but the UK is well engaged in this international work stream and the potential for UK arrangements to conflict with future CPSS-IOSCO guidance is extremely low.
23. The Government recognises and welcomes the good practice already underway in the sector on recovery and resolution planning and therefore sees these changes as building on and formalising that good practice.

Policy objectives

24. The Government's rationale for acting is to protect financial stability by ensuring that clearing houses with the potential to be systemic have robust recovery arrangements in place for restoring their business to solvency in the event that they encounter financial difficulty. The options and proposals set out in the discussion document were targeted at achieving this in line with the objectives of:
 - strengthening the stability and resilience of the financial system by preventing contagion;
 - reducing the likelihood of individual CCPs threatening wider stability if they get into difficulties;
 - ensuring the continuity of critical market functions provided by CCPs; and
 - ensuring that taxpayer interests are protected.
25. The change to the recognition requirements will take the form of a high level principle setting certain parameters (retaining consistency with the overall approach taken by these requirements). In anticipation of the new recognition requirements coming into force, the Government expects clearing houses to propose their own specific design of rule in consultation with their members which complies

⁵ 'The plan should contain, among other elements, a substantive summary of the key recovery or orderly wind-down strategies, the identification of the FMI's critical operations and services, and a description of the measures needed to implement the key strategies. An FMI should have the capacity to identify and provide to related entities the information needed to implement the plan on a timely basis during stress scenarios.' [Paragraph 3.3.8 of the *Principles*]

with the requirements set out by the Government. It is envisioned that the Bank of England will call in proposed rules for regulatory review and approval or disallowance.

26. The members would then review the draft loss allocation rule for each clearing house with which it is a clearing member. Once the members are largely in agreement⁶ with the proposed arrangements put forward by the CCPs, the rules will then be included in the clearing houses' rule books.

Sectors and firms affected

27. These proposals are expected to affect (either directly or indirectly):

- UK central counterparties (CCPs) which offer central counterparty clearing services
- shareholders of recognised clearing houses (RCHs) that provide clearing services and firms that are participants (i.e. clearing members and their clients) of such RCHs;
- the financial authorities – principally the Bank of England; and
- wider financial and non-financial industry – this includes clients and counterparties.

28. The financial authorities would only consider acting to resolve a failing, or likely to fail, financial institution incorporated in the UK if its failure posed a threat to the UK's wider financial stability or taxpayer interests in the circumstances of the time.

29. The implementation of recovery arrangements by an RCH will not increase the potential liability its participants have against it. The aim of loss sharing rules is to set out ex ante how losses that exceed CCPs' normal resources will be allocated, but they do not increase the size of the loss. In the absence of the rule, if a CCP were to fail then the loss would still fall on the shareholders and participants of the CCP through a resolution (as provided for in the Financial Services Act) or an ordinary insolvency procedure.

Policy options considered

30. As mentioned above, international regulatory consensus and existing best practice with regards to institutions that have the potential to be systemically important supports the approach of recovery planning by these institutions, including a drive towards adopting (or investigating the merits of adopting) arrangements to mutualise losses amongst the participants⁷ of that institution. Given this trend, the Government has considered the following three policy options for introducing this international best practice to address the risks to stability posed by clearing houses experiencing financial difficulty:

- 1) Do Nothing Option: The UK Government takes no action and instead relies on recognised clearing houses' existing arrangements to deal with uncovered losses that could threaten their solvency.
- 2) UK Action Option: **The UK Government takes action now (rather than waiting for European action) to make changes, via domestic legislation, to the recognition requirements for clearing houses, to make the introduction of loss sharing arrangements by clearing houses mandatory.**
- 3) European Option: The UK Government relies on an expected European-led process to introduce any recovery (including loss sharing arrangements) and resolution regimes for clearing houses.

31. Each option is discussed in further detail below.

⁶ In accordance with usual member-consultation procedures.

⁷ Members in the case of a clearing house.

Do Nothing Option

32. As outlined above, UK clearing houses weathered the last financial crisis well. They are governed by robust regulatory arrangements and have in place a number of defences against failure. Despite this, there is a risk that extreme market conditions could threaten the financial soundness of a clearing house. The unexpected failure of its largest members, combined with a general decline in the value of posted collateral or losses arising from other business risks, could lead to losses in excess of the pre-funded default resources held by the CCP.
33. Since the financial crisis and reflecting their growing importance, the UK, as part of wider international efforts, has taken steps to limit the likelihood and impact of a clearing house failing. As well as a new framework to facilitate the effective resolution of UK CCPs as part of the Financial Services Act 2012, there has been further engagement between the financial authorities and clearing houses on recovery planning which would see the voluntary implementation (for some but not all business lines) of contractual agreements to distribute losses amongst members in the event that a clearing house is exposed to uncovered losses. In addition, EMIR will also put in place stringent regulatory requirements for clearing houses. These include requirements on the amount of permanent, initial and available capital, strict rules as to the amount and quality of collateral collected by a clearing house from its clearing members, and rules concerning the investment policy of a clearing house's own funds.
34. Under the 'Do Nothing Option', the UK would rely on the above arrangements to effectively deal with instances in which a recognised clearing house providing CCP services experiences financial difficulty with the potential to result in its insolvency.

UK Action Option

35. Given that the content and timing of any European legislation in this field is uncertain, the UK Government believes that there is a strong case for amending the recognition requirements for CCPs now rather than waiting for any European legislation to be introduced.
36. The Government believes that such a change will help the authorities to press for more comprehensive rules that achieve all of the Government's objectives, especially in relation to ensuring continuity in the provision of critical clearing services, and will ensure that adequate protections are in place in a timely manner to protect against the threat of a failing CCP disrupting financial stability. These changes would also potentially reduce the need for resolution action, further increasing confidence in the stability of the financial system.
37. The Government intends to ensure that the policy change is consistent with the new European requirements on clearing houses to be introduced via EMIR. EMIR has brought in mandatory clearing obligations for OTC derivatives contracts and set out a number of harmonised authorisation requirements which will result in all clearing houses having to apply for reauthorisation before they can provide clearing services. However, recital (50) of EMIR and Article 14(5) are clear that the requirements set out in EMIR do not prevent Member States from adopting or continuing to apply additional requirements in respect of clearing houses established in their jurisdiction.

European Option

38. Following the publication of the Financial Stability Board's (FSB) Key Attributes of Resolution Regimes⁸ in November 2011, the FSB noted that in the context of Financial Market Infrastructure (FMI) (including CCPs), the choice of resolution powers should be guided by the need to maintain continuity of critical FMI functions. CPSS-IOSCO has – with the support of the FSB – conducted work on the application of the FSB's Key Attributes for resolution regimes for FMI. In particular, CPSS-IOSCO is considering the need for clearing houses to introduce loss-sharing rules, and, whether specific resolution arrangements for FMIs are needed.

⁸ http://www.financialstabilityboard.org/publications/r_111104cc.pdf [Section 1.2].

39. Building on the CPSS-IOSCO findings (published in May 2012), the European Commission has recently consulted on the need to have a recovery and resolution framework for non-banking institutions. In particular, the Commission sought views on the need for clearing houses to have loss allocation rules as a means of ensuring that the owners and creditors of clearing houses bear losses before the possible use of public funds. The Commission appears to be orientating its policy consideration in a useful direction, and the UK continues to engage with the Commission to share its views and encourage progress at an EU level.
40. While the UK Action Option would put recovery and loss allocation rules in place that go beyond current EU minimum requirements, these rules may well become an EU requirement in the years ahead. It is still too early to predict with confidence either the likely form of any EU legislation in this area or the timescales for such legislation, but for the purpose of this impact assessment we assume that legislation will be introduced in three years time and take a similar form as that proposed in the UK Action Option. Under this assumption the costs and benefits of the European Option are similar to the UK Action Option but they are incurred three years later.

Analysis of policy options

41. The mandatory introduction of requirements for recognised clearing houses providing CCP services to have loss allocation rules and recovery plans will carry costs and benefits. The following section sets out a cost-benefit analysis of each of the policy options open to the Government.

Do Nothing Option

42. This option will provide the baseline against which the costs and benefits of the alternative policy options are analysed. That is, for the alternative options, we only identify and analyse the costs and benefits that are additional (i.e. incremental or marginal costs and benefits) to those that would have been incurred if no action were taken.

Benefits to key groups

UK Action Option

43. Given the fact that loss allocation rules and recovery plans will only be deployed in exceptional (and low probability) circumstances once available, there are few direct monetisable benefits associated with them.
44. However, requiring clearing houses to have loss allocation rules and recovery plans in place would generate non-monetisable indirect benefits arising from increased confidence in the future stability of the financial system, as a result of these firms being able to effectively restore themselves to solvency while maintaining continuity of clearing services should they encounter financial difficulty.
45. More significantly, deploying loss allocation rules and wider recovery plans to prevent the failure of a systemically important clearing house would provide benefits with respect to ensuring the continuity of the critical clearing functions provided by that systemic firm and averting the threat of failure causing wider disruptions to the financial system and real economy that could otherwise occur. As such the probability and impact of failure would be reduced. These benefits will mainly accrue to:
- clearing members (as arrangements will ensure the continued provision of the critical service provided by systemic clearing houses);
 - Government and taxpayers (as arrangements will reduce the likelihood of resources being used to deal with the failure of a clearing house); and
 - wider non-financial industry (as arrangements will reduce the risks of knock-on impacts occurring to the wider economy, thereby minimising contagion effects).

46. It is not possible to monetise the cost of a failure of a CCP (and therefore the benefit of preventing its failure) with any accuracy. However, it is clear that the on-going operational and prudential viability of CCPs is critical to the safe and secure operation of financial markets, both in the UK and globally.
47. The value of payments made through the CCPs' systems is highly significant. For example, in 2012 the average daily values of payment cash flows for LCH.Clearnet Ltd and ICE Clear Europe were £3.7bn and £1.2bn respectively.⁹ LCH.Clearnet Ltd clears for 17 exchanges and multilateral trading facility platforms, as well as substantial levels of OTC traded business. Notably LCH.Clearnet Ltd currently has over 2.5 million SwapClear trades open at the CCP, with a notional value of over \$370 trillion. ICE Clear Europe has open positions of over €500bn in credit default swap contracts.
48. A failure of a CCP would be almost certain to severely disrupt (quite possibly halting entirely) activity in markets for which the CCP clears. Furthermore, clearing members and their clients have considerable counterparty exposure to and hold considerable sums of collateral with CCPs. The failure of a CCP would lead to uncertainty about the status of these positions and collateral holdings, further disrupting financial stability.
49. The Independent Commission on Banking (ICB)¹⁰ report illustratively calculated the cost of a financial crisis to be around £40bn per year in 2010 terms. It would be very difficult to assess accurately what impact each financial market reform – including those under consideration here – would have in isolation on the probability and severity of future financial crises. However, because the costs of financial crises are so high, the proposed measures under consideration (in both policy options) only need to reduce the probability and/or severity of a financial crisis by a small incremental amount in order to deliver a very significant benefit, in terms of a reduction in the expected annualised costs of financial crises.

European Option

50. As mentioned above, the UK Government anticipates that it is likely that the European Commission will adopt the recommendations of the FSB and CPSS-IOSCO, which will likely require Member States to ensure that clearing houses in their jurisdictions have in place adequate recovery plans including appropriate loss allocation rules.
51. As such, the benefits to key groups under this option will be similar to those under the UK Action Option. However, uncertainty regarding the timeline for the introduction of similar arrangements as part of any future EU legislative action means that the above benefits are conditional on the European Commission taking action over the long term. Even if European legislation is introduced, as assumed in this impact assessment, it will probably not be for several years and so no financial stability benefits will be realised until then. This further strengthens the case for domestic UK action now.

Costs to key groups

UK Action and European Options

Costs to firms

52. The indicative cost estimates in this section are based on the assumption that each clearing house would expend legal, compliance and account management costs in producing their loss allocation rules and recovery plans. It is anticipated that the legal costs could be the greatest costs, with the rest of the costs being administrative in nature. It is also assumed that each clearing member may elect to review the draft loss allocation rule and recovery plan for each clearing house with which it is a clearing member and that the clearing members may use both in-house and external legal advisers. However, reflecting the flexibility clearing members have in deciding whether to fully review the CCPs' loss

⁹ Payment Systems Oversight Report 2012, Bank of England: <http://www.bankofengland.co.uk/publications/Documents/psor/psor2012.pdf>

¹⁰ Independent Commission on Banking, 2011, Final Report: <http://bankingcommission.s3.amazonaws.com/wp-content/uploads/2010/07/ICB-Final-Report.pdf>.

allocation rules or not and also that several CCPs have already implemented loss allocation rules (with member input) and would not need to repeat this effort, it should be noted that the calculated costs here represent the high end of a wide range of possible costs.

53. There are currently six recognised clearing houses in the UK (number of clearing members in brackets), although only the following five are authorised to provide clearing services¹¹:

- LCH.Clearnet Ltd (c. 167 members);
- ICE Clear Europe (c. 68 members);
- EuroCCP (c. 24 members) and
- CME Clearing Europe (c. 14 members).
- LIFFE (c. 48 members)

UK CCPs providing clearing services and clearing members

54. Based on the loss allocation rules and recovery arrangements that have already been voluntarily introduced by some clearing houses, we expect the costs of establishing and maintaining recovery arrangements to largely, if not entirely, consist of the one-off costs required by clearing houses to: draft loss allocation rules; consult on these rules with their participants; and implement the finalised rules, and for participants to respond to the consultations and to assess the potential impact that the implementation of the loss allocation rules may have on their business.

55. We assume that the development of recovery arrangements by clearing houses will involve legal and operational resource from the clearing houses' staff, including at a senior level. Clearing houses developing recovery arrangements may also take advice from external legal advisors in drafting and finalising this rule. It is not expected that clearing houses will incur material IT or operational costs as a result of the requirement to develop and maintain loss allocation rules because these would be incorporated in their rule books and plans and would not be used in the day to day operations of the business except in the event of risks crystallising.

56. It is assumed that participants of clearing houses will engage closely with clearing houses in producing the required recovery arrangements. Participants may also expend legal resource in assessing the impact of the resulting loss allocation rule on their business and the potential liabilities that they will face under the new rules. It is possible that some participants may also take external legal advice on these areas. We also envisage that the on-going costs of maintaining loss allocation rules will not be significant, neither for clearing houses nor their participants, and therefore they are not quantified in this cost-benefit analysis.

57. We estimate that the aggregate costs to clearing houses of developing, consulting and implementing a loss allocation rule could be up to the region of £100,000 to £200,000. This is based on rudimentary internal analysis which assumes that each of the five CCPs would expend legal, compliance, marketing and account management costs in producing their loss allocation rules. It is assumed that each CCP will need 80 hours of legal advice at £250 per hour, 80 hours of commercial time at £100 per hour and 20 hours of senior management time at £250 per hour. In practice not all CCPs will need legal advice to produce new rules. Furthermore, all five UK CCPs already have some form of loss allocation rule, and so much of the work required has already been performed. Accordingly, this set of assumptions produces an upper estimate of costs.

58. Should each clearing member elect to review the draft loss allocation rule for each CCP with which it is a clearing member, we estimate that each *participant* of each clearing house may incur costs in the region of up to £20,000 to £30,000 in reviewing such rules and engaging with each clearing house of which it is a member during its consultation period. This assumes that each member will spend 80 hours (at a cost of £250 per hour) using both in-house and external legal advisers to review each loss allocation rule proposed by each CCP that it is a member of, and 20 hours of senior management

¹¹ The sixth is CREST, the UK's securities settlement system.

time at £250 per hour. Given that there are around 273 memberships across the five CCPs, the total aggregated costs to members could be in the region of up to £5,460,000 to £8,190,000.

59. The costs specified here are at the upper end of the potential range of costs for members. As only one requirement will be applied across the board, and commonalities will exist between the rules applied by different CCPs, members are not likely to need a high level of engagement with every CCP of which they are a member. Also, it is worth pointing out that clearing members are not obliged to expend costs in reviewing the loss allocation rules produced by the clearing house for which it is a member and in reality most could just accept the rule as drafted by the clearing house and reviewed by the authorities. The Government believes that the majority of clearing members are unlikely to adopt this approach but if they did it would put downward pressure on the cost estimates given here.
60. Given the assumptions outlined above, we estimate that total costs to the industry (calculated by summing the projected costs of the clearing houses and their members) could, at the highest end of the range, amount to up to £8,390,000.
61. As mentioned above, the majority of clearing houses have already developed – and in some cases introduced – loss allocation rules. As such, sunk costs have already been incurred by:
- the majority of clearing houses in developing, consulting and implementing their loss allocation rule; and
 - their respective clearing members with regards to assessing the impact of the resulting loss allocation rule on their business.
62. This is another reason why the above assumptions form an upper estimate of the incremental costs to the industry of complying with the new recognition requirements.
63. It is likely that there will be some incremental costs to the industry if a UK regime is replaced in the future by a European regime, as the requirements of the new European regime may not match the requirements of the UK regime exactly (it is too early to tell the likely form of any EU legislation). Consequently some additional costs could be incurred in the future by CCPs amending their recovery rules and plans and clearing members performing reviews of such amended arrangements. It is difficult to provide a reliable estimate of these incremental costs in the absence of firm proposals from Europe.
64. If any European legislation is introduced, it is not likely to be for at least a few years. Assuming that European legislation is introduced in three years time (this is a valid assumption given that the European Commission is likely to adopt FSB and CPSS-IOSCO recommendations but that no timetable is as yet in place), the costs described in this section will be incurred in around three years' time. We assume that in real terms the costs will be the same as calculated above as the same actions and services (e.g. legal advice) will be required by firms to adapt to the new regulations.

Direct costs to the Bank of England

65. The Bank of England will be required to monitor and assess firms' compliance with the requirement to maintain adequate recovery arrangements. However, this task will form part of the existing Bank of England supervision of the relevant CCPs. Whilst it will present a marginal increase in the level of supervisory resource required, it is not envisaged that this will have a material impact nor require an increase in the level of Bank of England resource.

Market impacts

66. There is a diversity of commercial structures in the provision of clearing services in the UK, with both listed for-profit and participant owned not-for-profit clearing houses being active. Both UK based and non-UK based CCPs are active in providing clearing services to UK based market participants.

67. The provision of clearing services within the UK is competitive, with multiple clearing houses seeking to provide services to market participants. However, the efficiency benefits of concentrating the flow of business to maximise netting efficiency tend to promote the predominant use by market participants of a single clearing house for given asset classes. This and the expected adoption of similar rules by the European Commission in due course will reduce the risk of UK clearing houses losing competitiveness to non-UK clearing houses.
68. The implementation of recovery arrangements by a clearing house will not increase the potential liability its participants have against it. The aim of loss sharing rules is to set out ex ante how losses that exceed CCPs' normal resources will be allocated, but they do not increase the size of the loss. In the absence of the rule, if a CCP were to fail then the loss would still fall on the shareholders and participants of the CCP. The rules should serve to increase the resilience of the clearing house and increase market confidence in it. Accordingly, we do not envisage that the introduction of a requirement to maintain loss allocation rules will disincentivise the clearing of transactions through clearing houses.

Conclusions from options analysis

69. Given the concentration of risk within CCPs the failure of a CCP would be highly likely to have a significant impact on financial stability, and so it seems clear that the relatively minor costs of making arrangements to avoid such failure would be outweighed by the financial stability benefits of having such arrangements in place.
70. Over the long term, some form of loss allocation arrangements and recovery planning requirements for clearing houses (given their potential to be systemically important) is likely to be introduced as part of a European process. However, this may be some years away.
71. Domestic action by the UK Government, rather than doing nothing, increases the resilience of UK clearing houses and serves to improve financial stability. Taking action now rather than waiting for any European legislation means that the benefits from increased resilience will be realised earlier, and these benefits far outweigh the minor costs of implementation that will also be incurred earlier. For this reason, the UK Government believes that there is a strong case for the UK taking action now, ahead of the European process.