

Title: The Furniture and Furnishings (Fire) (Safety) Regulations 20XX IA No: BEIS051(C)-22-OPSS RPC Reference No: Lead department or agency: Department for Business and Trade (Office for Product Safety and Standards) Other departments or agencies: N/A	Impact Assessment (IA)
	Date: 11/05/23
	Stage: Development/Options
	Source of intervention: Domestic
	Type of measure: Secondary legislation
	Contact for enquiries: furniturefire.safety@beis.gov.uk
Summary: Intervention and Options	RPC Opinion: N/A

Cost of Preferred (or more likely) Option (in 2019 prices)			
Total Net Present Social Value	Business Net Present Value	Net cost to business per year	Business Impact Target Status Qualifying provision
-£15.7m	-£15.7m	£1.8m	9.1

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

The Furniture and Furnishings (Fire) (Safety) Regulations 1988, as amended in 1989, 1993 and 2010 (the FFRs), set fire safety levels for domestic upholstered furniture. They have not been substantially revised since they were introduced and reflect an outdated policy. Specifically, the flammability testing regime does not reflect modern fire hazards or the fire safety of products as they exist in the home. It has also led to the widespread use of chemical flame retardants as the most cost-effective way of meeting flammability requirements and there is concern about the adverse effects to health and the environment of chemical flame retardants. The scope of the regulations needs addressing to respond to these concerns and more can be done to encourage a reduction in the use of chemical flame retardants. Government intervention is required to ensure the policy is up to date, maintains the current high level of fire safety of domestic upholstered furniture and furnishings, and improves fire safety by addressing associated issues.

What are the policy objectives of the action or intervention and the intended effects?

- Maintain and improve the fire safety outcomes for UK domestic upholstered furniture, such that there is a measurable reduction in domestic fire incidents, including those that result in death or injury, where domestic upholstered furniture is the first item to ignite.
- Remove the mandated flammability testing regime and replace it with essential safety requirements that set desired outcomes, supported by new British Standards developed independently by the British Standards Institution.
- Reduce non-compliance by giving greater certainty to businesses and enforcement officers on the scope of the regulations.
- Support better enforcement of the regulations by improving traceability and increasing the time available to take legal action in the case of non-compliance.
- Enable and encourage a reduction in the use of chemical flame retardants.
- Reduce the regulatory barriers to bringing innovative products to market.

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

Option 0 – ‘Do nothing’ –The FFRs and the associated flammability testing regime will remain, and domestic upholstered furniture and furnishings will continue to meet strict fire safety outcomes. A product’s flammability is assessed by individually testing its constituent parts (components), which does not accurately demonstrate the fire safety of the final product. Ignition sources prevalent in the modern domestic environment, such as electronic devices with lithium-ion batteries, are not taken into account. The current regulations have led to the widespread use of chemical flame retardants to meet fire safety requirements, which are potentially detrimental to health and the environment. This option will not fulfil the policy objectives.

Option 1 – ‘Revoke and replace the FFRs with a new approach’ –This option replaces prescriptive tests with essential safety requirements that all domestic upholstered furniture must meet. This new approach will allow greater flexibility for compliance, enabling a reduction in the use of chemical flame retardants and supporting innovation. This option will amend and clarify the scope and facilitate compliance and enforcement. New flammability tests will be developed by the UK’s national standards body, the British Standards Institution, to better reflect the flammability of the final product and modern ignition sources. This is the preferred option as it would deliver the policy objectives.

Option 2 – Revoke the FFRs (and rely on The General Product Safety Regulations 2005) - This option sees the General Product Safety Regulations 2005 (GPSRs) as the vehicle setting legal requirements to ensure domestic upholstered furniture is fire safe. Under GPSRs, consumer products must be ‘safe’ in normal and foreseeable use. Manufacturers will have to assess the safety risks of the domestic upholstered products they produce and mitigate those risks. This is the approach taken by manufacturers across the EU, where voluntary standards have been produced that manufacturers may use. While GPSRs provide baseline protection from product hazards, consumers will not benefit from bespoke requirements to address the significant specific fire risk posed by upholstered furniture. This option therefore lowers the fire safety requirements of domestic upholstered furniture sold in the UK, compared to the ‘do nothing’ baseline. This could lead to an increase in death and injury to consumers because of domestic furniture fires. This option will not fulfil the primary objective of maintaining and improving fire safety outcomes for domestic upholstered furniture.

Option 3 – Maintain the FFRs and produce additional guidance – This option involves retaining the FFRs as they are and producing additional guidance for manufacturers/suppliers to follow on a voluntary basis to give effect to some of the new policy objectives. This option is very unlikely to fulfil the policy objectives due to the very prescriptive nature of the FFRs. There may be upfront costs for businesses in familiarising themselves with new guidance, with little or no business benefit arising from the effort. As such, this option has been discounted.

Is this measure likely to impact on international trade and investment?					Yes
Are any of these organisations in scope?		Micro Yes	Small Yes	Medium Yes	Large Yes
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)			Traded:	Non-traded:	
Will the policy be reviewed? It will be reviewed. If applicable, set review date: 5 years after new regulations come into force.					

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 Kevin Hollinrake MP, Minister for Enterprise, Markets and Small Business at the Department for Business and Trade:

A handwritten signature in black ink, appearing to read 'Kevin', enclosed within a faint, light-colored rectangular border.

Date:

24.05.2023

Description:

FULL ECONOMIC ASSESSMENT

Price Base Year 2019	PV Base Year 2020	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: -61.5	High: 28.8	Best Estimate: -15.7

COSTS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	10.4	10	0.0	10.6
High	70.8		0.1	71.6
Best Estimate	37.7		0.1	38.2

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

1. Cost of new and updated measures required by the regulations such as:
 - Creating, producing, and applying a label that contains essential consumer safety and traceability information to improve enforcement;
 - Creating, managing and storing a technical file for 10 years for new products;
 - Labelling for reupholstered products.

Over 10 years, the costs of these changes are estimated to amount to ~£38m, including initial one-off costs.

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

1. Standards to support the new approach will be developed independently by the British Standards Institution. As these standards have not yet been developed, the expected change in costs to businesses cannot yet be determined. The impact of new flammability tests will be explored when the new British Standards have been finalised, prior to the updated regulations coming into force. Depending on the finalised regime, this could amount to either a net cost or benefit.

BENEFITS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	0.0	10	1.2	10.1
High	0.0		4.6	39.4
Best Estimate	0.0		2.6	22.5

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

1. Reduction in labelling costs by removing requirement for a display label.
2. Reduced cost of compliance for products removed from scope.

Over 10 years the benefits of these changes will be around £23m, all ongoing.

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

1. Improved fire safety, reduced insurance claims due to fire, ease on public services through a potential reduction in fires.
2. Health benefits due to reduced exposure to chemical flame retardants – and savings from using less chemical flame retardant.
3. Environmental improvements due to reduction in use of chemical flame retardants.
4. Improved compliance and enforcement due to clarification of scope and improved traceability information.
5. Opportunities for innovation as businesses adapt to the regulations and are able to introduce new products without chemical flame retardants.

Key assumptions/sensitivities/risks**Discount**

3.5

1. Some estimates are calculated from a limited evidence sample, including labelling, testing and storage costs. To help overcome this uncertainty, sensitivity analysis has been conducted using ranges in the estimates.
2. In some calculations, there may be affected businesses or products not accounted for where there is a lack of evidence.
3. There are some risks around dissemination and fire safety. This is expected to be overcome through guidance and is set out in more detail in the risks section.

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual)			Score for Business Impact Target (qualifying provisions only) £m:
Costs: 4.4	Benefits: 2.6	Net: 1.8	

Evidence Base and Background to the Impact Assessment

Introduction

1. This impact assessment sets out the impact of proposed changes to the current policy for the fire safety of domestic upholstered furniture and furnishings sold in the UK.¹ The current policy is implemented by the FFRs, which set levels of fire resistance for domestic upholstered furniture and furnishings.
2. The FFRs were introduced to respond to the increasing number of UK furniture fire-related deaths in the home from the 1960s to the 1980s (see Figure 1). The naturally fire-resistant materials used in furniture making for centuries, such as wool, cotton and horsehair, were being replaced with cheaper, synthetic materials such as polyurethane foam. Whilst this made new furniture more affordable, these man-made materials were extremely flammable.

Figure 1– Number of Fire Fatalities²

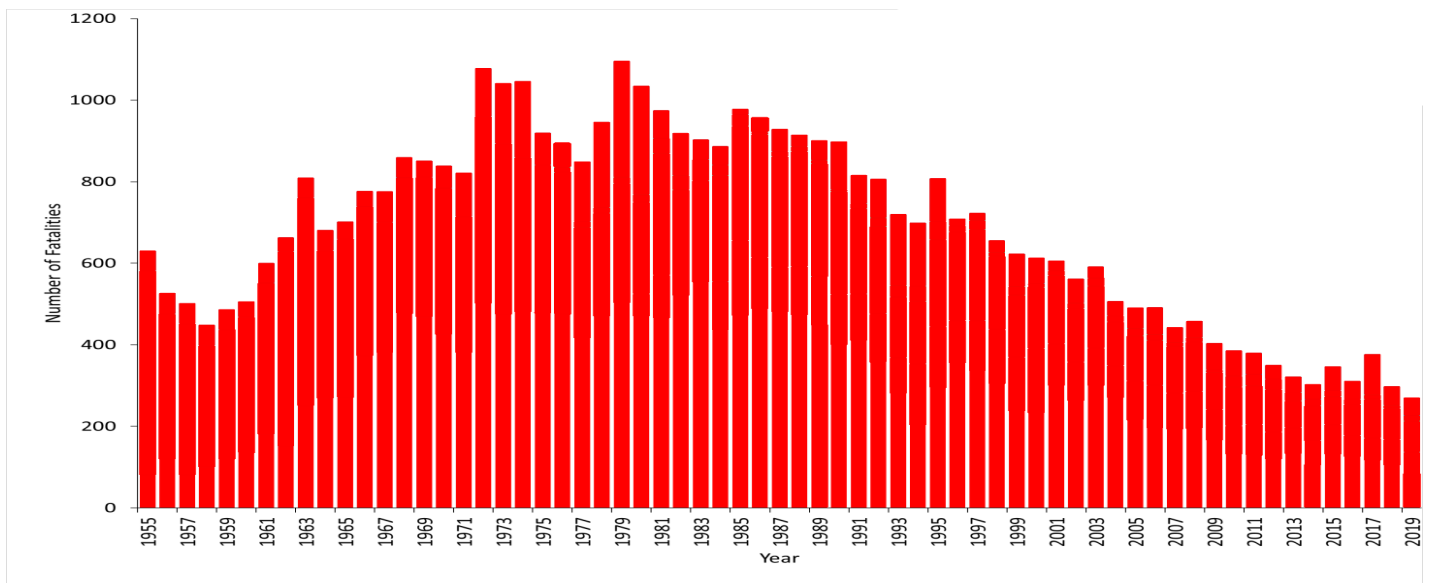
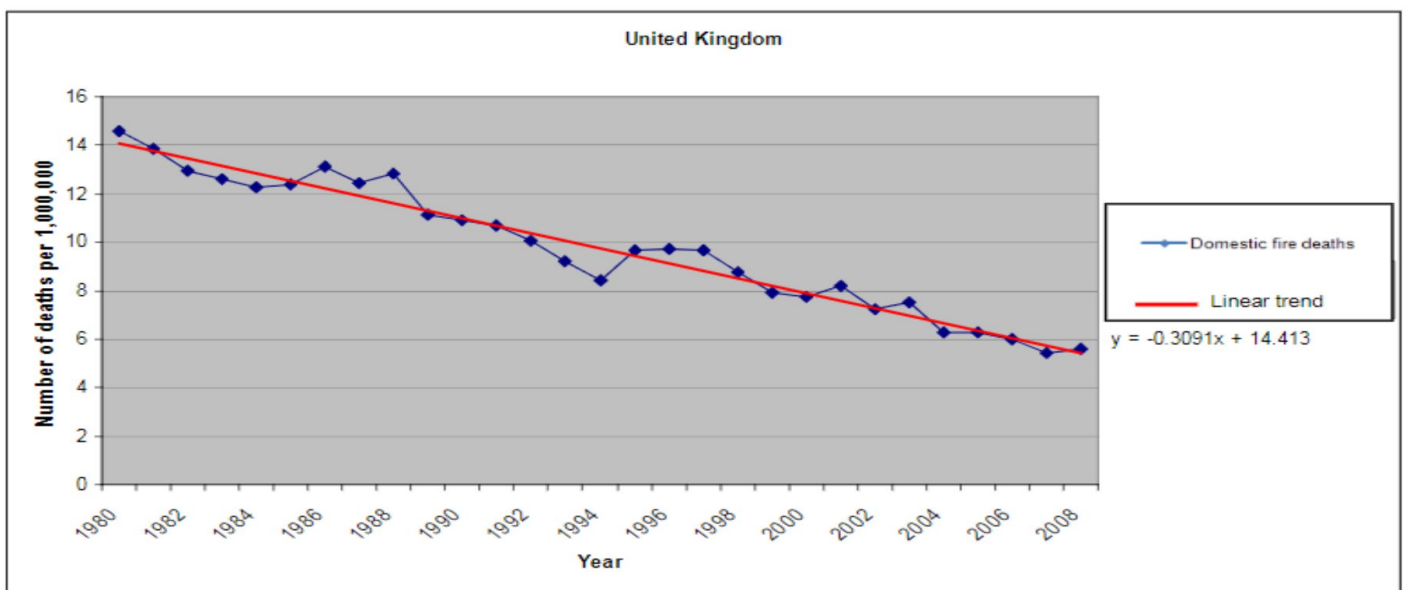


Figure 2 – Evolution of domestic fire deaths per 1 million inhabitants in the UK³



3. Figures 1 and 2 show a downward trend in the number of house fires and fatalities since the introduction of the FFRs, which indicates the positive impact of the regulations. A Department for Business, Innovation and Skills-commissioned report in 2009 suggests that the FFRs were annually saving around 54 lives, preventing around 800 injuries and over 1000 fires in the period 2002 – 2007. These savings to health and property were valued at around £140m per year.⁴ In addition, research published by the University of Surrey showed that in 1992, four years after the introduction of the FFRs, there were at least 65 fewer deaths as a result of fires started in upholstered furniture in the home, than in 1988. The research goes on to conclude that in 1997 there were 138 fewer deaths than in 1988, and by 1997, as a conservative estimate, the FFRs had saved at least 710 lives since their introduction.⁵
4. Fully assessing the extent to which the fall in fire deaths can be attributed to the FFRs is challenging because other factors have undoubtedly played a role in reducing house fires and fatalities since the end of the 1980s. An analysis by Emsley et al. (2005) considers that by the year 2000 about half of the reduction in the number of fire deaths in the UK could be ascribed to the FFRs and half to the increased presence and effectiveness of smoke alarms: smoke alarm ownership increased from 8% to 95% from 1988 to 2016.⁶ Furthermore, the proportion of the population that smokes has halved since 1990 (from 30% to 15% today) and smoking is a significant fire safety risk in the home.^{7,8} It must also be acknowledged that a similar trend in house fires and fatalities can be observed in other countries where fire safety of domestic upholstered furniture is not regulated as stringently.
5. Whilst it is accepted that the FFRs play a significant role in domestic fire safety, there are a number of challenges that need addressing to ensure they continue to deliver a range of fire safety benefits. These are discussed below.

Problem under consideration and rationale for policy change

Challenges linked to the current testing regime

6. The FFRs assess the resistance of cover material used in domestic upholstered furniture to flaming and non-flaming/smouldering ignition sources. These ignition sources are represented by a match and cigarette respectively in the current flammability testing regime. This is because smoking and smoking related materials were considered to be important contributors to domestic fires. Flaming ignition sources, including candles, matches and other naked flames still represent the ignition source for 30% of domestic fires where furniture is the first item ignited and 9% of all domestic fires.⁹ Smoking related ignition sources are attributed to 27% of domestic fires where furniture is the first item ignited from 2010 to 2018, and 8% of all domestic fires during the same period.¹⁰ While these continue to be important ignition sources for furniture fire safety, other ignition sources are increasingly relevant where furniture is the first item ignited in the home environment. For example, research commissioned by the Office for Product Safety and Standards states that there has been a noticeable rise in the number of dwelling fires

¹ Domestic furniture addresses products manufactured for use in the home, as opposed to furniture intended for use in offices, hospitals and other public places or commercial settings.

² Figure 1 plotted from UK fire statistical data, and (historically) from Fire Research Station data. <https://www.gov.uk/government/collections/fire-statistics>

³ Arcadis, 'Identification and evaluation of data on flame retardants in consumer products', 2011, pp. 303.

⁴ Greenstreet Berman Ltd., 'A statistical report to investigate the effectiveness of the Furniture and Furnishings (Fire) (Safety) Regulations 1988', 2009, pp. viii.

⁵ The University of Surrey, 'Effectiveness of the Furniture and Furnishings (Fire) (Safety) Regulations 1988', 2000, pp. 1.

⁶ Arcadis, 'Identification and evaluation of data on flame retardants in consumer products', 2011, pp. 310.

⁷ Home Office Fire Statistics series FIRE 0701, <https://www.gov.uk/government/statistical-data-sets/fire-statistics-data-tables#smoke-alarms>

⁸ "Adult Smoking Habits in Great Britain," Office for National Statistics, accessed May 24, 2022, <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/drugusealcoholandsmoking/datasets/adultsmokinghabitsingreatbritain>

⁹ "Characteristics of Modern Domestic Fires and the implications for product performance testing," BRE Global, June 2021

¹⁰ "Characteristics of Modern Domestic Fires and the implications for product performance testing," BRE Global, June 2021

caused by battery chargers since 2014, including counterfeit charging devices.¹¹ Heating equipment, cooking appliances and other domestic style appliances are also important ignition sources, representing the ignition source for 20% of domestic fires where furniture is the first item ignited.¹² It is important to ensure that domestic furniture can resist ignition from emerging and continually relevant ignition sources when assessing the fire safety of domestic upholstered furniture and in order to meet the policy objective of maintaining and improving fire safety.

7. By mandating the flammability testing requirements for products in scope, the FFRs are highly prescriptive and therefore there is no flexibility in demonstrating that products are fire safe. This is reported to limit innovation as manufacturers must produce products within strict parameters. Furthermore, the regulations are out of step with the outcomes-based approach taken in modern product safety legislation, where high-level essential safety requirements must be met. The outcomes-based approach acknowledges the potential for various ways of meeting those requirements, thus allowing manufacturers more flexibility to comply with them.
8. The FFRs require upholstery components used in domestic upholstered furniture to pass flammability tests but this does not reflect the fire safety of the final product as it exists in the home. Instead, a final product is assumed to be fire safe if its components have passed those tests. This fails to take account of, or adequately reflect, the way in which the specific components used in the final item will behave together, and how the product in its final form will behave, in the event of that product coming into contact with an ignition source.
9. The mandatory cigarette test requires the use of cigarettes that are no longer commercially available in the UK and difficult to obtain. It is important for the testing regime to reflect the true risks as they exist in the home and the current cigarette test no longer does this.
10. The match test represents a worst-case scenario by requiring cover fabrics to be tested over highly flammable non-combustion modified foam, which would not pass the fillings test and therefore cannot be used in furniture placed on the UK market. The test is therefore not representative of an item of furniture as it exists in the home, and leads to more chemical flame retardants being used in cover fabrics than is necessary in a final product, or the need for chemical flame retardants in cover fabrics simply to meet the required standard.

Challenges for enforcement authorities

11. Information relating to the product is only required to be held for 5 years. This limits the availability of information that may be required by Trading Standards to trace products and supply chain operators for enforcement purposes. This is not in line with the 10-year requirement for maintaining a technical file under other product safety legislation.
12. Trading Standards only have six months from the time when an offence is committed, or the matter of complaint arose, to institute legal proceedings. Trading Standards have indicated that “there is great difficulty in investigating breaches of the FFRs within the six-month timescale.”¹³ They have recommended that this be extended to 12 months, in line with other consumer protection legislation.

Challenges linked to the use of chemical flame retardants (CFRs)

13. The FFRs have led to the widespread use of chemical flame retardants as the most cost-effective solution to ensure upholstery meets the flammability tests. This presents a number of related challenges:

¹¹ “Characteristics of Modern Domestic Fires and the implications for product performance testing,” BRE Global, June 2021

¹² “Characteristics of Modern Domestic Fires and the implications for product performance testing,” BRE Global, June 2021

¹³ Operation Chair 2: report by Enfield Council Trading Standards Service on behalf of the London Trading Standards Association (LoTSA), April 2013

- i. Chemicals are regulated by UK Registration, Evaluation, Authorisation & restriction of Chemicals (UK REACH) and the Stockholm Convention on Persistent Organic Pollutants. These aim to provide a high level of protection of human health and the environment from the use of chemicals. Assessing and determining that a chemical is unsafe takes a long time; chemical flame retardants which were previously permitted for use in upholstered furniture have since been banned because of the serious risk they pose to human health, wildlife and the environment. This was the case with Decabromodiphenyl ether (DecaBDE).
- ii. Although some chemical flame retardants have been phased out, they are still present in old furniture. They have also been replaced by 'regrettable substitutions' – substances which are chemically similar and just as harmful or potentially worse.
- iii. There is a growing body of research that some chemical flame retardants, including those permitted under UK REACH, pose a threat to human health and the environment.
- iv. Environmentally, chemical flame retardants add to the challenge of disposing upholstered furniture and recycling upholstery materials. When upholstered furniture is sent to landfill, chemical flame retardants can leach into water courses and ecosystems. Some remain intact for a long time, become widely distributed in the environment through natural processes, accumulate in the fatty tissue of organisms and are toxic to humans and wildlife. As a result, products containing chemical flame retardants must be incinerated at an extremely high temperature in order to destroy the chemicals and prevent environmental contamination. Incineration is costly and its availability is limited.
- v. Many chemical flame retardants are associated with adverse health effects, including cancer, reproductive toxicity and neurotoxicity.¹⁴ Human exposure arises due to migration of chemical flame retardants from products to the indoor environment, settling in dust. Dermal contact is also a potentially significant human exposure pathway. Babies and young children are at particular risk because of the potential developmental neurotoxicity of certain chemical flame retardants.¹⁵ This is exacerbated by the fact that babies spend a lot of time in close contact with furniture (cots, prams, pushchairs), and because of a baby/toddler's hand-to-mouth behaviour.^{16,17}

Challenges linked to labelling:

14. The current labelling requirements need simplifying as there are a number of variations to both the display and permanent labels.
15. The current labelling requirements only provide limited traceability information for enforcement purposes.
16. There are no requirements for providing information in respect of chemical flame retardants used in an item of upholstered furniture. This makes re-use and appropriate disposal extremely difficult and does not allow consumers to make informed purchasing decisions.

Challenges linked to scope:

17. The scope of products to which the FFRs apply is not clear and is currently defined by a list of products that are included, and a short list of exclusions. These lists are not exhaustive and there is a challenge concerning the applicability of the regulations to novel

¹⁴ Kathryn M Rodgers et al, "Do flame retardant concentrations change in dust after older upholstered furniture is replaced?," *Environment International* 153 (August 2021): <https://doi.org/10.1016/j.envint.2021.106513>.

¹⁵ Lucio G Costa and Gennaro Giordano, "Developmental Neurotoxicity of Polybrominated Diphenyle Ether (PBDE) Flame Retardants," *National Library of Medicine, Neurotoxicology* 28(6), (November 2007): 1047-1067, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2118052/>

¹⁶ Ann Vuong et al, "Concentrations and loadings of organophosphate and replacement brominated flame retardants in house dust from the home study during the PBDE phase-out," *Chemosphere* 239, (January 2020): <https://doi.org/10.1016/j.chemosphere.2019.124701>

¹⁷ Mohamed Abou-Elwafa Abdallah and Stuart Harrad, "Dermal Uptake of chlorinated organophosphate flame retardants via contact with furniture fabrics; implications for human exposure," *National Library of Medicine*, <https://pubmed.ncbi.nlm.nih.gov/35104485/>

products being brought to market. This in turn leads to inconsistent interpretations about the applicability of the FFRs.

18. Some stakeholder groups contend that a number of products or groups of products should not be in scope of the regulations, because they present a relatively low fire risk versus the potential risk of exposure to potentially harmful chemical flame retardants. This is the case for certain baby products and outdoor furniture. The Environmental Audit committee recommended the removal of baby products from the scope of the regulations following its inquiry into toxic chemicals in everyday life due to the disproportionately negative effects chemical flame retardants may have on babies.¹⁸

Economic rationale for intervention

19. Government intervention in the domestic upholstered furniture and furnishings market is needed as a result of several market failures which have emerged under the current regime.

Negative externalities

20. Negative externalities exist when the production or consumption of a product results in a cost to a third party which is unaccounted for in the sale price an individual consumer pays. In respect of furniture consumption, negative externalities exist in terms of the cost to society as a result of injury, death and property damage arising from the high flammability of domestic upholstered furniture. In a free market there is a clear risk of an over-provision of highly flammable domestic upholstered furniture. This provided the economic rationale for intervention in the form of the FFRs. The FFRs have addressed these negative externalities, by prohibiting the supply of highly flammable furniture and furnishings, bringing the private cost level into line with the social cost, leading to fewer unsafe products on the market.
21. While the FFRs resolved the market failure at the time, new distortions resulting from government intervention have emerged. For example, the match test is carried out on cover material placed over a worst-case filling material, which is not used in furniture, and this leads to an overuse of chemical flame retardants (or use of chemical flame retardants where otherwise unnecessary) in the cover material to pass the test, leading to negative externalities for the environment and on human health. Additionally, products are currently required to pass a cigarette test, despite smoking in the home declining since the FFRs came into force, and the type of cigarette specified no longer being commercially available in the UK. This means that products are tested against hazards that are potentially less relevant than newer hazards such as faulty electrical devices. Intervention is now required to update the existing regime in such a way that resolves these market failures by reflecting current practices and risks.

Information failure

22. In a perfect market, consumers would have full information relating to a given product to ensure they are able to make fully informed purchasing decisions. This includes information such as details of testing the product has undergone, and any chemicals the product contains. Prior to the introduction of the FFRs, there were no requirements for manufacturers of domestic upholstered furniture to provide this type of information in respect of upholstered furniture products. Therefore, consumers were not fully informed about the products they were buying before, and manufacturers did not fully understand the basis for consumers' purchasing decisions. This is likely to have resulted in a sub-optimal allocation of resources and hence, an inefficient market. An inefficient market is one that does not succeed in incorporating all available information into a true reflection of

¹⁸ Environmental Audit Committee, "Toxic Chemicals in Everyday Life: Conclusions and recommendations," (July 2019): <https://publications.parliament.uk/pa/cm201719/cmselect/cmenvaud/1805/180511.htm>

a product's fair price. By providing this information, consumers would have a greater awareness of a product's level of safety and factors that might impact that. The FFRs corrected some of this market failure although further enhancements are needed now, including to further inform the consumer about the chemical flame retardants contained in the product.

Policy Options

23. This Impact Assessment considers three policy options:

- a) Option 0 – 'Do nothing'.
- b) Option 1 – 'Revoke and replace the FFRs with a new approach'.
- c) Option 2 – Revoke the FFRs (and rely on the General Product Safety Regulations 2005).
- d) Option 3 – Maintain the FFRs and produce additional guidance.

Option 0 – Do Nothing (maintain the status quo)

24. This option maintains the status quo and retains the FFRs.

25. A number of important changes have been observed since the FFRs were introduced and these changes affect the effectiveness and appropriateness of the FFRs:

- i. the domestic environment has changed, with a greater emphasis on fire safety measures; more households have working smoke alarms than was the case in the 1980s¹⁹;
- ii. there are new ignition sources in the modern home, such as lithium-ion battery devices, which are not reflected in current flammability testing requirements;
- iii. fewer people smoke than they did in the 1980s²⁰;
- iv. furniture design and manufacture has changed, including new materials being developed, which changes the nature of the hazard.

26. A new regime is required to take account of these changes.

27. The scope of the FFRs is unclear, leading to inconsistent interpretation of the requirements and varying levels of product compliance (e.g. pet beds). This is confusing for Trading Standards as the enforcement officers.

28. Current prescriptive flammability testing requirements are a barrier to innovation and have resulted in the excessive use of chemical flame retardants in upholstered furniture products. This is a cause for concern, as chemicals which have previously been approved as safe for use in upholstered furniture, such as DecaBDE, have subsequently been banned under chemical legislation for their negative effects on health and the environment. Doing nothing does not address this issue, and the market will continue to use chemical flame retardants as the most cost-effective means of making domestic upholstered furniture fire safe, and do so to potentially excessive levels.

29. Current information requirements are not adequate to enable effective traceability and enforcement. There is limited information in respect of the supply chain (chemical suppliers, material suppliers, etc.) and product information is currently only required to be held for 5 years. Without this information, tracing non-compliant products back to their source and carrying out effective enforcement is difficult. Furthermore, this does not align with the 10-

¹⁹Home Office Fire Statistics series FIRE 0701, <https://www.gov.uk/government/statistical-data-sets/fire-statistics-data-tables#smoke-alarms>

²⁰"Adult Smoking Habits in Great Britain," Office for National Statistics, accessed May 30, 2022, <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/drugusealcoholandsmoking/datasets/adultsmokinghabitsingreatbritain>

year requirement for a product's technical documentation to be retained under most other product safety legislation.

30. Current labelling requirements do not provide information in respect of chemical flame retardant use which makes appropriate disposal difficult and does not support informed consumer purchasing.
31. The 'do nothing' option is not preferred because it would not deliver the policy objectives, which are to:
 - I. Maintain and improve the fire safety outcomes for UK domestic upholstered furniture, such that there is a measurable reduction in domestic fire incidents, including those that result in death or injury, where domestic upholstered furniture is the first item to ignite.
 - II. Remove the mandated flammability testing regime and replace it with essential safety requirements that set desired outcomes, supported by new British Standards developed independently by the British Standards Institution.
 - III. Reduce non-compliance by giving greater certainty to businesses and enforcement officers on the scope of the regulations.
 - IV. Support better enforcement of the regulations by improving traceability and increasing the time available to take legal action in the case of non-compliance.
 - V. Enable and encourage a reduction in the use of chemical flame retardants.
 - VI. Reduce the regulatory barriers to bringing innovative products to market.

Option 1 – Revoke and replace the FFRs with a new approach (preferred option)

32. This option maintains the current high levels of fire safety outcomes by ensuring that domestic upholstered furniture meets strict flammability requirements. There are various ways in which fire safety is improved under Option 1. Removing the prescribed flammability tests and replacing them with high level essential safety requirements will give manufacturers the flexibility to consider more appropriate ways of demonstrating that their products meet the requirements. The essential safety requirements focus on the product in its final form and voluntary standards that will support manufacturers to meet the essential safety requirements will consider important modern ignition sources.
33. Option 1 will clarify the scope of products to which the new approach will apply, resulting in improved consistency of compliance. This clarification also supports enforcement. Improvements to compliance and enforcement result in safer products. In addition, clarifying the scope will support businesses to bring new products to market with certainty of their obligations. Option 1 will also clarify requirements for re-upholstered and second-hand furniture to support these businesses to comply and facilitate the circular economy.
34. Option 1 will remove the requirement for a display label and associated costs while improving product and traceability information on the new permanent label.
35. Extending the period of time businesses are required to keep technical documentation to 10 years and including information about the supply chain will enable Trading Standards to identify and rectify compliance issues over a longer period. A new permanent label which instructs consumers to not remove it will ensure important information remains with the product throughout its lifetime, and at the end of the product's life will assist with disposal. Improved enforceability of the regulations is expected to result in improved levels of compliance and therefore safer products.
36. Option 1 will seek to address the concerns associated with the use of chemical flame retardants by putting in place a package of measures to encourage and enable a reduction in the use of chemical flame retardants on the grounds of health and the environment. Manufacturers will have to indicate on the label that a product contains chemical flame retardants and include a list of those chemical flame retardants. This will support

appropriate disposal of products in scope as well as inform consumer purchasing, which in turn is expected to drive the market towards alternatives to chemicals. Manufacturers will have to apply a flame retardant technology hierarchy when designing a product, prioritising inherently flame-retardant materials and designs. There is also an essential safety requirement that specifies that chemical flame retardants used in the product must not jeopardise the safety of consumers or users. Furthermore, Option 1 proposes to remove certain products from the scope of the regulations, including a number of baby products, which, in turn, is expected to lead to a reduction in the use of chemical flame retardants to make those products safe.

37. Option 1 proposes a transition period during which both the current and new regulations will apply. This will allow businesses time to place products on the market in accordance with the outgoing regime, thereby avoiding wastage. This also allows time to adjust to the new approach following publication of new British Standards.
38. By introducing concepts such as essential safety requirements, conformity assessment and technical files, Option 1 brings the FFRs into line with modern approaches to product safety regulation, making the regulations easier for industry to follow and Trading Standards to enforce.
39. This is the preferred option as it would deliver the policy objectives.

Option 2 – Revoke the FFRs (and rely on the General Product Safety Regulations 2005 (GPSRs))

40. Option 2 proposes to revoke the FFRs and rely on GPSRs for fire safety. GPSRs already apply to domestic upholstered furniture and furnishings in scope of the FFRs in respect of safety generally.
41. The EU (except the Republic of Ireland) relies on the 2001 General Product Safety Directive (GPSD) for domestic upholstered furniture fire safety. GPSD requires all consumer products to be 'safe', and it was implemented into UK law by the GPSRs. The GPSRs apply to all consumer products sold in the UK (new and second-hand), including domestic upholstered furniture, and provide baseline safety requirements.
42. For higher risk products sector-specific requirements exist where the requirements of the GPSRs are not deemed sufficient, raising the level of safety provided to address specific risks. This is the case with the FFRs: the FFRs are domestic regulations which set specific flammability requirements for domestic upholstered furniture which represent a higher level of fire safety than is provided for under the GPSRs. Therefore, revoking the FFRs and relying on GPSRs for furniture fire safety would not maintain or improve fire safety of domestic upholstered furniture and could lead to an increase in injury, death and property damage.
43. Revoking the FFRs would be expected to lead to a reduction in chemical flame retardant use, partially addressing the concerns about their effects on health and the environment. However, it is conceivable that manufacturers will continue to use chemical flame retardants in order to make the product fire safe. While consumers of these products will likely benefit from reduced exposure to chemical flame retardants compared with Option 0, they will not benefit from the measures proposed in Option 1, such as the requirement to label for chemical flame retardants and the essential safety requirement that any chemical flame retardant used in the product must not jeopardise the safety of consumers. Furthermore, manufacturers may continue to follow the standards required by the FFRs in order to evidence compliance with the safety obligations in the GPSRs. This would mean the result is the same as Option 0 and negate some of the possible benefits of Option 2.
44. Revoking the FFRs would enable businesses to bring innovative products to market as manufacturers would no longer be bound by the strict requirements which currently reduce their ability to innovate. It would resolve the uncertainty around which products need to

comply with the FFRs, as they would all simply fall under GPSRs and products may be cheaper to buy, if less testing, labelling and chemical flame retardant is required.

45. While revoking the FFRs may deliver some benefits and resolve a number of issues, this option would not meet the primary policy objective of maintaining and improving fire safety of domestic upholstered furniture, and therefore we do not recommend this option.

Option 3 – Maintain the FFRs and produce additional guidance

46. Option 3 proposes maintaining the FFRs and producing additional guidance for manufacturers/suppliers to follow on a voluntary basis to give effect to some of the new policy objectives.
47. Whilst this might encourage some businesses to move towards the new approach voluntarily, products will need to comply with the very prescriptive FFRs. Manufacturers are unlikely to carry out additional final item flammability testing on a voluntary basis, as it would lead to additional costs. They are also unlikely to amend labelling voluntarily to include information on chemical flame retardant use for the same reason.
48. There may be some costs for businesses associated with familiarisation with the new guidance, with little or no business benefit arising from that effort due to the very prescriptive nature of the FFRs. As such, this option is very unlikely to deliver the new policy objectives, has been discounted and is not explored further in the costs and benefits section below. It should be noted that it is believed that this option represents a net present cost over and above the counterfactual.

Costs and Benefits

49. In autumn 2021, the Office for Product Safety and Standards undertook a call for evidence from relevant stakeholders to inform this Impact Assessment. Questions were asked in respect of the cost of flammability testing, labelling and technical files. 142 responses were received and have been analysed, and where applicable, the evidence provided has been used to estimate the impact of the proposals within this assessment.
50. As well as explaining our proposed policy and seeking feedback from stakeholders, the consultation aims to gather further evidence from stakeholders, particularly where the impact assessment is based on assumption or limited evidence, in order to provide a better understanding of the impact of the proposals.
51. Each policy option will have a different impact on affected businesses. Not all businesses will be affected by the changes proposed in Options 1 and 2.
52. Calculating the impact of each option requires estimating the number of businesses affected by the FFRs and the proposed changes under Option 1.
53. The FFRs affect the following types of business:
- i. manufacturers of products in scope of the regulations;
 - ii. suppliers of products in scope of the regulations;
 - iii. upholsterers and re-upholsterers of products in scope of the regulations;
 - iv. retailers/distributors of products in scope of the regulations;
 - v. importers of products in scope of the regulations; and
 - vi. test houses which carry out the flammability testing on components that are used in products in scope of the regulations.

The table below estimates the number of businesses in the affected sectors.

Table 1 – Businesses that are directly affected by the FFRs

Types of Business²¹	Number of businesses
Manufacturers	
3103: Manufacture of mattresses	210
3109: Manufacture of other furniture	3,995
Manufacturers of Outdoor Furniture	57
Manufacturers/Suppliers of Baby Products	149
Touring Caravans Manufacturer	6
Holiday Caravans Manufacturer	12
Suppliers	
1392: Manufacture of made-up textile articles; except apparel	2,115
Chemical Flame Retardant Producers	6
Textiles Flame Retardant Processors	12
Retailers/Distributors (including importers)	
4615: Agents involved in the sale of furniture; household goods; hardware and ironmongery	1,275
4647: Wholesale of furniture; carpets and lighting equipment	2,450
4759: Retail sale of furniture; lighting equipment and other household articles in specialised stores	9,970
Re-upholsterers	
9524: Repair of furniture and home furnishings	820
Test Houses	11
Total	21,088

54. The businesses affected have been calculated predominantly through Office for National Statistics (ONS) (2021) business figures. Due to the lack of granularity for some types of businesses affected by the FFRs, some figures were collected directly from relevant Trade Associations. The total number of businesses affected by the FFRs is estimated to be in the region of 21,000.

Option 0 – Do Nothing (maintain the status quo) – Counterfactual

55. Option 0 proposes no change to the status quo, retaining the FFRs. As businesses already comply with the FFRs, and would continue to do so without any change to legislation, this option has been used as the counterfactual scenario. There are ongoing costs for businesses to continue to comply with the FFRs, however they are not new costs, so these costs have been baselined at zero. Options 1 and 2 only consider costs and benefits over and above Option 0. The costs involved with Option 3 are anticipated to be higher than those associated with the counterfactual. The benefits of Option 3 are very limited due to the very prescriptive nature of the FFRs.

²¹ "UK business: activity, size and location," Office for National Statistics, accessed May 31, 2022, <https://www.ons.gov.uk/businessindustryandtrade/business/activitysizeandlocation/datasets/ukbusinessactivitysizeandlocation>, and stakeholder evidence.

Option 1 – Revoke and replace the FFRs with a new approach

Familiarisation Cost – One-off Cost

56. Businesses incur a cost associated with the time spent reading and understanding the regulatory changes that affect them. This familiarisation cost is likely to apply to all businesses that are directly affected by the FFRs.
57. According to Table 1, around 21,000 businesses would need to familiarise themselves with the requirements of the new regulations, and how they differ from current requirements.
58. The cost of one hour of labour used is the 2021 median wage for “Corporate managers and directors”, £22.82, which is marked up by 21.8%²² to account for non-wage labour costs such as pensions and national insurance, giving £27.79 as the hourly familiarisation cost.
59. The length of the proposed draft new regulations is 9,254 words. At three reading speeds, 100 words per minute (WPM), 200 WPM and 300 WPM²³ this gives a respective reading time of 1.54 hours, 0.77 hours, and 0.51 hours.

Table 2 – Familiarisation Cost of Affected Businesses

Businesses Affected: 21,088	Familiarisation Hours		
	1.54 (Slow)	0.77 (Best estimate)	0.51 (Fast)
Per Business Cost	£42.87	£21.43	£14.29
Total Cost	£904,000	£452,000	£301,000

60. The best estimate scenario estimates that there would be a one-off cost of around £18 to each affected business, amounting to an aggregated one-off cost to business of £379,000 to familiarise themselves with the proposed draft new regulations.
61. This assumes that all businesses that will be affected by the new approach do familiarise themselves with new regulations and that the time for familiarisation is the same for all businesses, regardless of industry or size.

Labelling

62. Option 1 proposes a number of changes in respect of how businesses label their products and the information required on labels.
63. All products in scope of the new approach must bear a new permanent label. Requirements for the proposed new permanent label are:
 - i. The following warnings: “CARELESSNESS CAUSES FIRE” & “DO NOT REMOVE THIS LABEL – this label is required for the product to be resold on the second-hand market, and to ensure the product is disposed of appropriately”;
 - ii. Confirmation that the product complies with the regulations using the words: “This product complies with The Furniture and Furnishings (Fire) (Safety) Regulations 20XX)”;
 - iii. Details about the manufacturer (name and address), batch number or identification number and date of manufacture; and
 - iv. Whether the product contains any chemical flame retardants (the words, “This product contains chemical flame retardants to meet the requirements of The Furniture and

²² “Labour cost levels by NACE Rev. 2 activity,” Eurostat, last modified May 17, 2022, https://ec.europa.eu/eurostat/databrowser/view/lc_lci_lev/default/table?lang=en

²³ Department for Business, Energy and Industrial Strategy, “Business Impact Target, Appraisal of guidance: assessments for regulator-issued guidance,” accessed May 30, 2022, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/609201/business-impact-target-guidance-appraisal.pdf

Furnishings (Fire) (Safety) Regulations 20XX”) and a list of those chemical flame retardants.

64. Much of this information is already required on the current permanent label. The main difference between the current permanent label and the proposed new permanent label is the requirement to provide information relating to chemical flame retardants on the new permanent label.
65. The proposed new labelling requirements specify the information that must be provided, and that that information must be clearly visible, legible and indelible. The proposed requirements do not specify a particular design; it is up to manufacturers to design the permanent label for their products. Affected businesses will incur a one-off cost to redesign the label.

Permanent label redesign – One-off cost

66. There is limited evidence for how much the permanent label redesign may cost. Investigations conducted by The Department for Business, Energy and Industrial Strategy into label redesign costs for the new UKCA marking estimated a range of £1,000 to £10,000 with a central estimate of £5,000²⁴. This evidence included looking at engraved and moulded markings for a UKCA marking. Redesigning the permanent label proposed under the new approach is assumed to cost less than the costs for redesigning the UKCA marking as it is not required to be engraved or moulded. For this reason, the lower end of the scale is used, with a range of £500 – £1,500, with the best estimate one-off cost for redesigning the proposed new permanent label being £1,000.
67. This figure does not take into account who designs the label. Manufacturers may redesign the label themselves or outsource it to a third-party supplier. If it is a third party, there is likely to be a one-off cost for each design submitted, which will depend on the range of products for which labels are required. Permanent labels will vary based on batch numbers, the date of production of a product/batch of products, whether chemical flame retardants have been used in a product, and the chemical flame retardants that have been used. The permanent label design should be adaptable to accommodate these variations. If so, amendments to the label as a result of these variations will likely be easy to design and we assume the total cost still lies within the stated range.
68. It is understood that manufacturers will be the main type of business affected by costs associated with redesigning the proposed new permanent label. Therefore, around 6,000 businesses will be affected, as shown in table 3.

Table 3 – Estimated Affected Businesses²⁵

Businesses	Number of businesses
3103: Manufacture of mattresses	210
3109: Manufacture of other furniture	3,995
1392: Manufacture of made-up textile articles; except apparel	2,115
National Caravan Council Members (Non-motor)	18
Total	6,338

69. The best estimate cost is calculated from multiplying the number of businesses affected by the best estimate one-off cost of redesigning the proposed new permanent label of £1,000,

²⁴ Impact Assessment to The Product Safety and Metrology etc. (Amendment etc.) (UK(NI) Indication) (EU Exit) Regulations 2020, accessed May 31, 2022, <https://www.legislation.gov.uk/ukdsi/2020/9780348213393/impacts>

²⁵ “UK business: activity, size and location,” Office for National Statistics, accessed May 31, 2022, <https://www.ons.gov.uk/businessindustryandtrade/business/activitysizeandlocation/datasets/ukbusinessactivitysizeandlocation>, and stakeholder evidence.

giving the total best estimate one-off cost for all affected business for redesigning the proposed new permanent label of **£6,338,000**.

Table 4 – Label Redesign Cost

Businesses Affected: 6,338	Label Redesign Cost		
	Low	Best	High
Label Redesign Cost	£500	£1,000	£1,500
Total Cost	£3,169,000	£6,338,000	£9,507,000

Printing the proposed new permanent label – Ongoing cost to manufacturers

70. It is assumed that the ongoing cost of printing the proposed new permanent label will be similar to the cost of printing the current permanent label. This is because businesses are expected to use the same material to print the proposed new permanent labels, no colour is required and the label will only comprise printed text.
71. Though the size of the permanent label and amount of text is not expected to change much as a result of the proposed new permanent label requirements, this does depend on the use of chemical flame retardants. Businesses will be required to state that chemical flame retardants have been used in the product, and, where used, list those chemical flame retardants. From limited stakeholder evidence, a range of 3 to 15 chemical flame retardants are commonly used in a given product to ensure compliance with current flammability requirements. If manufacturers continue to use a similar number of chemical flame retardants in products manufactured in accordance with the new approach, this is likely to lead to a bigger permanent label, with more text, than the current permanent label. This could lead to an increase in the ongoing cost of printing the proposed new permanent label. This increase in cost is difficult to determine and is dependent on how many chemical flame retardants are used in a given product. As the additional information is plain text, any increase to the ongoing cost of printing is only likely to be marginal, regardless of the number of chemical flame retardants listed on the label. This cost increase may be mitigated by the package of measures proposed under Option 1 to encourage a reduction in the use of chemical flame retardants, including the application of the flame retardant technology hierarchy, which encourages manufacturers to use alternative methods of making products fire resistant, without chemical flame retardants.
72. The proposed requirement to label for chemical flame retardants may lead to other costs which are difficult to determine. Manufacturers will not be able to benefit from economies of scale, as there will be more variations to permanent labels required and fewer required of each variation. Manufacturers will also have to, for the first time, acquire information relating to chemical flame retardants from their suppliers. It is understood that this information will be provided to manufacturers by their suppliers under the terms of the supply contract, given the obligation on manufacturers to provide this information on the proposed new permanent label. Furthermore, it is reasonable to expect manufacturers to acquire it so that they know what is in the products they are placing on the market, and that they are safe. The uncertainty of these additional ongoing costs to manufacturers in order to meet the requirements of the proposed new permanent label may partially offset the ongoing benefit of removing the current requirement for a display label.

Removal of display label requirement – Ongoing benefit

73. Option 1 proposes to remove the current requirement for a display label. Businesses will no longer need to print and attach this label, resulting in an ongoing saving. Current labelling costs are estimated by multiplying the number of products requiring display and permanent labels, by the cost of each label.

74. The ONS estimates the number of products manufactured each year in its “ProdCom” dataset.²⁶ There are about 10,457,000 products produced each year which comply with the current regulations.
75. The products used to calculate this are:
- i. 31001150 (CN 940130) - Swivel seats with variable height adjustments EXCLUDING: - medical, surgical, dental or veterinary seats - barbers or similar chairs
 - ii. 31031100 (CN 940410) – Mattress supports INCLUDING: - wooden or metal frames fitted with springs or steel wire mesh – upholstered mattress bases – with wooden slats – divans
 - iii. 31031270 (CN 94042910) – Mattresses with spring interiors EXCLUDING: - of cellular rubber or plastics
 - iv. 31001170 (CN 940171) - Upholstered seats with metal frames EXCLUDING: - swivel seats with variable height adjustment - medical, surgical, dental or veterinary seats - barbers' or similar chairs - for motor vehicles - for aircraft
 - v. 31001210 (CN 940140) - Seats convertible into beds EXCLUDING: - garden seats or camping equipment
 - vi. 31001250 (CN 940161) - Upholstered seats with wooden frames INCLUDING: - three-piece suites EXCLUDING: - swivel seats with variable height adjustment
76. The best estimate of sales uses a 5-year average of the annual amount of relevant products produced between 2016 to 2020. There may be other items affected but not captured by this data. To mitigate this risk, a range has been formed with the low sales estimate of 7,843,000 being 25% lower than best estimate (10,457,000), and the high sales estimate being 25% higher than best estimate, at 13,072,000. Sales figures from 10 of the last 12 years fall within this range, with one of the outliers, 2020, potentially being due to the effect of the Covid-19 pandemic on sales.
77. One label costs an estimated £0.25 to print, with domestic upholstered furniture such as sofas currently requiring two labels.²⁷ There is uncertainty about this price, which is based on limited market research and stakeholder evidence, hence a range has been used, from £0.15 to £0.35. This is the assumed benefit to businesses per item sold as a result of removing the requirement for a display label on each item. There is no scientific reason behind choosing £0.15 as the lower bound and £0.35 as the upper bound, however it is assumed that a 40% increase or decrease in the costs should sufficiently cover the uncertainty.
78. To calculate the ongoing benefit to business, the total yearly sales of relevant items are multiplied by the cost saving estimated for each item as a result of removing the current requirement for a display label. The low estimate is calculated by multiplying the low sales estimate by the low-cost estimate, and a similar calculation is done for best estimate and high estimate.

²⁶ UK manufacturers' sales by product,” Office for National Statistics, access May 30, 2022, <https://www.ons.gov.uk/businessindustryandtrade/manufacturingandproductionindustry/datasets/ukmanufacturerssalesbyproductprodcom>

²⁷ Evidence from BEIS commissioned survey of stakeholders including manufacturers, re-upholsterers, suppliers, test houses, trade associations and others.

Table 5 – Yearly Ongoing Benefit

	Estimated Saving		
	Low £0.15	Best £0.25	High £0.35
Low Sales (7,843,000)	£1,176,000	£1,961,000	£2,745,000
Best Sales (10,457,000)	£1,569,000	£2,614,000	£3,660,000
High Sales (13,072,000)	£1,961,000	£3,268,000	£4,575,000

79. The following table summarises this annual benefit as well as accruing the total over the 10-year appraisal period. It is discounted by 3.5%, based on HMT guidance.²⁸

Table 6 – Benefit Estimates

Discount Rate: 3.5%	Estimated Benefits from Removal of Display Label		
	Low	Best	High
Initial Cost	£1,176,000	£2,614,000	£4,575,000
Total Ongoing Cost 10 Years	£10,126,000	£22,503,000	£39,381,000

80. This benefit may be partially offset by the requirement to include information about chemical flame retardants on a product's permanent label, as noted above.

Final Item Testing

81. Currently, components (cover materials and fillings) used to manufacture domestic upholstered furniture and furnishings are required to pass the relevant flammability test prescribed in the FFRs. The final product is determined to be fire safe by virtue of its components passing those tests. Option 1 moves away from this approach and proposes that products in their final form must meet essential safety requirements before being placed on the market.
82. These essential safety requirements include the requirement for products to not readily ignite when they come into contact with flaming or non-flaming ignition sources, and if they ignite, a requirement that they burn slowly or self-extinguish. The British Standards Institution is independently developing new voluntary British Standards that will support businesses to demonstrate compliance with the essential safety requirements. This consultation is expected to support the development of the new standards. These new standards will set out a new flammability testing regime that businesses may follow.
83. In most cases, testing a final product in its entirety is not practical and would be a disproportionate burden on businesses, therefore the proposal in Option 1 allows for testing to be carried out on a representative sample (a composite) of the final product. Manufacturers will incur a one-off cost associated with adjusting to a new testing regime. Test houses may also be affected. Ongoing impacts for manufacturers will depend on the number and nature of the new tests, which are yet to be determined.
84. The impact of the introduction of final item testing will not affect re-upholsterers as they are only supplying components and thus will only be required to ensure that those components

²⁸ "The Green Book: appraisal and evaluation in central government," accessed May 30, 2022, <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>

are fire safe, rather than the whole re-upholstered product. This is discussed briefly in the re-upholstery section below.

85. There is a new requirement for products produced in a series (mass produced): they will need to be tested periodically, based on complexity of design and volume production, to ensure ongoing compliance. Businesses are expected to incur an ongoing cost as a result of periodic testing. These costs cannot be accurately determined until the new British Standards have been finalised.
86. The impact of new flammability tests will be explored when the new British Standards have been finalised. Depending on the finalised regime, this could amount to either a net cost or benefit, which will be set out in the final stage Impact Assessment.

Technical File

87. Option 1 proposes to extend the requirement for manufacturers to maintain a product's technical file from 5 to 10 years, and also requires manufacturers to record certain product information in that technical file that is not required currently by the FFRs.

Upgrading technical file and storage provisions costs – One-off Cost

88. Due to an existing requirement for manufacturers to hold a technical file for 5 years, it is assumed that most manufacturers will already have existing facility to digitally record details about their products. There is likely to be a one-off cost associated with extending the requirement to maintain a technical file to 10 years.
89. Based on limited evidence, estimates for storing digital files for 10 years are provided in Table 7 below.²⁹ The full estimated cost of acquiring a digital storage solution to store technical files for 10 years varies by the size of business. Larger businesses are likely to produce a greater range of goods and so may need more storage than a smaller business. It is assumed that businesses use all their storage space currently and hence an increase to the time needed to store files for, and hence the number of records to be held, will increase storage costs.

Table 7 – Full Cost of Storage for Technical Files

Size of Business	Low	Best	High
Small and Micro	£1,000	£5,000	£10,000
Medium	£3,500	£10,000	£15,000
Large	£15,000	£20,000	£25,000

90. As the proposal is to extend the current requirement to maintain a technical by an additional 5 years, the costs in Table 7 have been halved. For the best estimate, it is assumed that businesses use digital storage. One-off costs could be higher than the best estimate if businesses currently have physical storage rather than digital, or significantly lower if they have excess digital storage currently. The following estimates apply to affected businesses.

²⁹ "How much does a server cost for small & medium businesses (UK)," Manx Technology Group, accessed May 31, 2022, <https://www.manxtechgroup.com/how-much-will-a-server-cost-uk/>

Table 8 – Half Cost of Storage for Technical Files

Size of Business	Low	Best	High
Small and Micro	£500	£2,500	£5,000
Medium	£1,750	£5,000	£7,500
Large	£7,500	£10,000	£12,500

91. It is estimated that, based on the size of business, a one-off cost ranging from £2,500 to £10,000, will need to be invested to digitally accommodate the increase in number of files stored as a result of the additional 5 years of maintaining a technical file.
92. This proposal will affect manufacturers and importers. The following tables split the number of businesses affected into the size of business to calculate the cost that is applicable to them. This has been done using the breakdown provided by the Office for National Statistics as well as evidence provided by stakeholders.³⁰

Table 9 – Affected Businesses by Size and Industry

Number of Businesses	Small/Micro	Medium	Large	Total
3103: Manufacture of mattresses	175	30	5	210
3109: Manufacture of other furniture	3,870	115	10	3,995
1392: Manufacture of made-up textile articles; except apparel	2,055	50	10	2,115
Holiday Caravan Manufacturers (NCC)	0	2	10	12
Touring Caravans (NCC)	0	0	6	6
Retailers with Importer Obligations ³¹	5,228	42	13	5,284
Total	11,328	239	54	11,622

Table 10 – Micro and Small Businesses' Costs

Affected Businesses: 11,328	Cost of Increased Duration Storage of Technical Files (Micro and Small)		
	Low	Best	High
Cost of Upgrade	£500	£2,500	£5,000
Total Business Cost	£5,664,000	£28,321,000	£56,642,000

³⁰ "UK business: activity, size and location," Office for National Statistics, accessed May 31, 2022, <https://www.ons.gov.uk/businessindustryandtrade/business/activitysizeandlocation/datasets/ukbusinessactivitysizeandlocation>

³¹ This was calculated by taking 53% of retailers (4759: Retail sale of furniture; lighting equipment and other household articles in specialised stores in Table 1). According to a survey conducted by the British Retail Consortium, 53% of retailers also act as importers.

Table 11 – Medium Businesses’ Costs

Affected Businesses: 239	Cost of Increased Duration Storage of Technical Files (Medium)		
	Low	Best	High
Cost of Upgrade	£1,750	£5,000	£7,500
Total Business Cost	£418,950	£1,197,000	£1,796,000

Table 12 – Large Businesses’ Costs

Affected Businesses: 54	Cost of Increased Duration Storage of Technical Files (Large)		
	Low	Best	High
Cost of Upgrade	£7,500	£10,000	£12,500
Total Business Cost	£407,000	£543,000	£678,000

Table 13 – Sum of Businesses’ Costs

Affected Businesses: 11,622	Cost of Increased Duration Storage of Technical Files (All Businesses)		
	Low	Best	High
Total Cost	£6,490,000	£30,061,000	£59,116,000

93. Across all businesses affected by the proposal, the best estimate total one-off cost of investment to accommodate the additional file storage is £30,061,000.
94. There is limited evidence available to determine the ongoing cost of maintaining technical files under the new regulations, and how this will compare with current costs. It is assumed that the ongoing cost of maintaining technical files under the new regime will increase as a result of the extended period (from 5 years to 10 years) for which technical files must be held.
95. There are a number of additional information requirements proposed under Option 1. These include:
- i. information relating to material suppliers;
 - ii. manufacturers’ risk assessment that the design and manufacture processes will not result in a product which is not in conformity with the essential safety requirements;
 - iii. identification of the standards against which flammability testing has been carried out;
 - iv. Information about the test laboratory which carried out those detailed tests;
 - v. Pictures of the products (or composites thereof) at the time of testing;
 - vi. Information in respect of chemical flame retardants used in the product, including safety data sheets;
 - vii. Evidence of fulfilling the flame retardant technology hierarchy; and
 - viii. A declaration of conformity.
96. Obtaining this information may incur an ongoing cost for some manufacturers but it is understood that most businesses already have access to this information for administration purposes, so will only be required to process and organise it as required. Importers are not affected by this; all they are required to do is obtain a copy of the technical file from the manufacturer and keep it on file for 10 years. It is hence anticipated that any increase in

costs due to organising the new information will be covered within the estimated cost of expanding their systems, explained above.

Re-upholstery

97. Option 1 proposes to maintain the current requirement that any upholstery material added to an upholstered product during the re-upholstery or repair of that product must be fire safe. Option 1 proposes to introduce the requirement to affix a permanent label to the re-upholstered product (in addition to the product's original permanent label), in respect of the added upholstery material. There is currently no requirement to label a re-upholstered product.
98. Requirements for the re-upholstery permanent label are:
- i. the following warnings: "CARELESSNESS CAUSES FIRE" & "DO NOT REMOVE THIS LABEL" - this label is required for the product to be resold on the second-hand market, and to ensure the product is disposed of appropriately;
 - ii. Confirmation that the product has been re-upholstered and that the added upholstery material(s) complies with the regulations using the words: "This product has been re-upholstered/repared and the materials supplied as part of the re-upholstery/repair comply with The Furniture and Furnishings (Fire) (Safety) Regulations 20XX");
 - iii. Details about the re-upholsterer (name and address), a description of the added upholstery and date the re-upholstery/repair work was completed; and
 - iv. Indication whether the added upholstery (and therefore re-upholstered/repared product) contains any chemical flame retardants (the words, "This product contains chemical flame retardants to meet the requirements of The Furniture and Furnishings (Fire) (Safety) Regulations 20XX").

Designing a re-upholstery permanent label – One-off Cost

99. It is assumed that an introductory one-off cost to design a permanent label for re-upholstered products would be similar to the cost incurred by manufacturers as a result of redesigning the new permanent label to meet the new requirements. A best estimate of £1,000 is used to calculate a one-off cost to affected businesses. An estimated 820 businesses will be affected by this change. This figure is based on the business code "9524: Repair of furniture and home furnishings" from Table 1. The total one-off cost of designing a new permanent label for re-upholstered products for all businesses affected is estimated by multiplying the estimated one-off cost of designing the label by the number of businesses affected. This is set out in Table 14 below.

Table 14 – Cost of designing permanent label for re-upholstered products

Affected Businesses: 820	Cost of Designing Label		
	Low	Best	High
Cost of Upgrade	£500	£1,000	£1,500
Total Cost	£410,000	£820,000	£1,230,000

Printing and affixing permanent label for re-upholstered products – Ongoing Cost

100. There will be an ongoing cost associated with the new labelling requirement for re-upholstered products. To calculate this, the total number of products re-upholstered in the UK per year needs to be known in order to multiply this with the cost of each individual label. In the absence of sufficient evidence of the number of products re-upholstered in the UK per year, a proxy multiplier has been used based on understanding the number of products produced per firm in the manufacturing industry (using the PRODCOM and ONS

data previously mentioned in the labelling section) and applying a multiplier to the re-upholstery/repair sector.

101. Based on approximately 10,457,000 items produced per year across 4,205 manufacturing businesses, this gives a per firm production of 2,487 products per year. Only a subset of products are likely to be re-upholstered and hence an estimate of 10% of that figure has been attributed to the number of products re-upholstered per re-upholstery business per year. 10% is used because re-upholsterers account for just 20% of the businesses compared to manufacturers, and it is anticipated that re-upholsterers re-upholster less than half the number of products manufactured by the average manufacturer, with re-upholsterers often only having one employee compared to far more at the average manufacturer. That equates to 249 products per re-upholstery business per year. This gives a best estimate of around 204,000 products re-upholstered by all re-upholstery businesses per year. To mitigate some of the uncertainty around this figure a range has been used, with the low estimate assuming 25% fewer products re-upholstered than the best estimate and the high estimate assuming 25% more products re-upholstered. A range of the estimated total yearly cost to re-upholstery businesses as a result of permanently labelling re-upholstered products is set out in Table 15, using the same labelling cost estimates as outlined in paragraph 71.

Table 15 – Yearly Ongoing Cost

	Estimated Cost		
	Low Label £0.15	Best £0.25	High £0.35
Low Sales (153,000)	£23,000	£38,000	£54,000
Best Sales (204,000)	£31,000	£51,000	£71,000
High Sales (255,000)	£38,000	£64,000	£89,000

102. Table 16 summarises this annual cost as well as accruing the total over the 10-year appraisal period. It is discounted by 3.5%, based on HMT guidance.³²

Table 16 – Estimated ongoing cost of printing a permanent label for re-upholstered products

Discount Rate: 3.5%	Estimated ongoing cost of printing label		
	Low	Best	High
Yearly Cost	£23,000	£51,000	£89,000
Total Ongoing Cost 10 Years	£197,000	£439,000	£768,000

Component testing for upholstery supplied in the course of re-upholstery/repair of upholstered products

Option 1 proposes that upholstery components supplied by re-upholsters must meet essential safety requirements. The British Standards Institution is developing new British Standards to support re-upholsterers to meet the essential safety requirements. Costs and benefits associated with new flammability testing in accordance with those new British Standards cannot be determined until those standards have been developed.

³² "The Green Book: appraisal and evaluation in central government," accessed May 30, 2022, <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>

Scope of products

103. Based on research commissioned by the Office for Product Safety and Standards, Option 1 proposes to remove a number of products in scope of the current FFRs from the scope of the new approach.³³ These include certain baby products such as bassinets, pushchairs, Moses baskets and car seats. In addition, certain products will only be caught by the new approach if they are above a certain size. For example, scatter cushions under 45cm x 45cm and with a surface area of less than 0.405m² will be taken out of scope; larger scatter cushions will remain in scope.
104. Manufacturers of outdoor upholstered products can choose not to comply with the requirements of the new approach if they permanently label their products stating that they have not been assessed for compliance with the new approach, and warning consumers not to use or store them inside.
105. Those products which no longer need to comply with the requirements of the new approach must comply with the requirements of the GPSRs, which includes the requirement to ensure that products are safe in their normal or reasonably foreseeable usage.

Label Design for Outdoor Upholstered Product Warning Label – One-off Cost

106. It is assumed that the cost of the proposed outdoor upholstered product warning label would not be higher than the cost of meeting the proposed new permanent labelling requirement for products in scope of the new approach.
107. The costs here are based on the same evidence used to assess the impact of the proposed new permanent labelling requirements for all other products in scope of the new approach. As such, the best estimate one-off cost for designing this permanent label is £1,000. Assuming that all manufacturers of outdoor furniture will choose not to comply with the requirements of the new approach, the best estimate is multiplied by the number of affected businesses (57 Manufacturers of Outdoor Furniture, see Table 1), providing a best estimate of **£57,000**.

Table 17 – Cost of introducing replacement label

Affected Businesses: 57	Label Redesign Cost		
	Low	Best	High
Redesign Cost	£500	£1,000	£1,500
Initial Cost	£29,000	£57,000	£86,000

108. Despite this being a cost to business, it is anticipated that businesses will only create this label, stating that they do not comply with the new approach, if they believe that the overall benefit of not complying with the new approach will outweigh the costs of producing the label. The benefit is described in the section below.

Removal of products from scope – Ongoing benefit

109. As noted in table 18, around 200 firms will be primarily affected by the proposed changes to the scope of the regulations, though it is acknowledged that other businesses will also be affected. Although excluded products will not need to comply with the requirements of the new approach, resulting in reduced compliance costs, they will have to comply with the requirements of GPSRs. This is the case for domestic upholstered furniture placed on the EU market, where manufacturers generally rely on voluntary European standards for fire

³³ Prof Richard Hull et al, "Fire Risks of Upholstered Products," accessed May 29, 2023, <https://www.gov.uk/government/publications/fire-risks-of-upholstered-products>

safety. These standards are less strict than those set out in the FFRs, and fewer chemical flame retardants are required to meet them.

110. Meeting the requirements of the GPSRs instead of the new regulations not only reduces ongoing compliance costs owing to reduced chemical flame retardant use, but also realises an ongoing benefit in terms of human health and the environment. It is however difficult to quantify this benefit owing to the fact that it is difficult to calculate the extent of human and environmental harm attributable to chemical flame retardants in domestic upholstered furniture. There are indeed other sources of chemical flame retardants, such as electrical products and carpets, which will persist. By reducing the volume of chemical flame retardants in domestic upholstered furniture, either by removing certain products from the scope of the new approach, or by encouraging a reduction in the use of chemical flame retardants, this will reduce exposure levels and environmental contamination, delivering health and environmental benefits.
111. However, it should be noted this benefit is not guaranteed as it is conceivable that manufacturers may continue to test some products in the same way they currently do under the FFRs to demonstrate the products are fire safe. If that were the case, the same testing and cost of chemical flame retardants would be required. Therefore, no saving would be made in relation to testing and chemical flame retardant costs and there would be no benefit in terms of human exposure to chemical flame retardants and environmental contamination.
112. There are other requirements that need to be met under the GPSRs for products removed from the scope of the new regulations. For example, manufacturers must provide consumers with the relevant information to enable them to assess the risk inherent in a product throughout the normal or reasonably foreseeable period of use (where such risks are not immediately obvious) and to take precautions against those risks.
113. Manufacturers must also allow for traceability by indicating on the product or its packaging the name and address of the manufacturer and product reference or batch numbers. Distributors are required to maintain information in respect of the products they supply for enforcement purposes. These requirements may to some extent neutralise the benefits of no longer being required to comply with labelling and information requirements under the FFRs. It is also important to note that manufacturers, importers and distributors already have to comply with GPSRs in respect of a product's safety other than fire safety.

Table 18 – Businesses affected by proposed changes to scope³⁴

Businesses	Number of businesses
Manufacturers of Outdoor Furniture	57
Manufacturers/Suppliers of Baby Products	149
Total	206

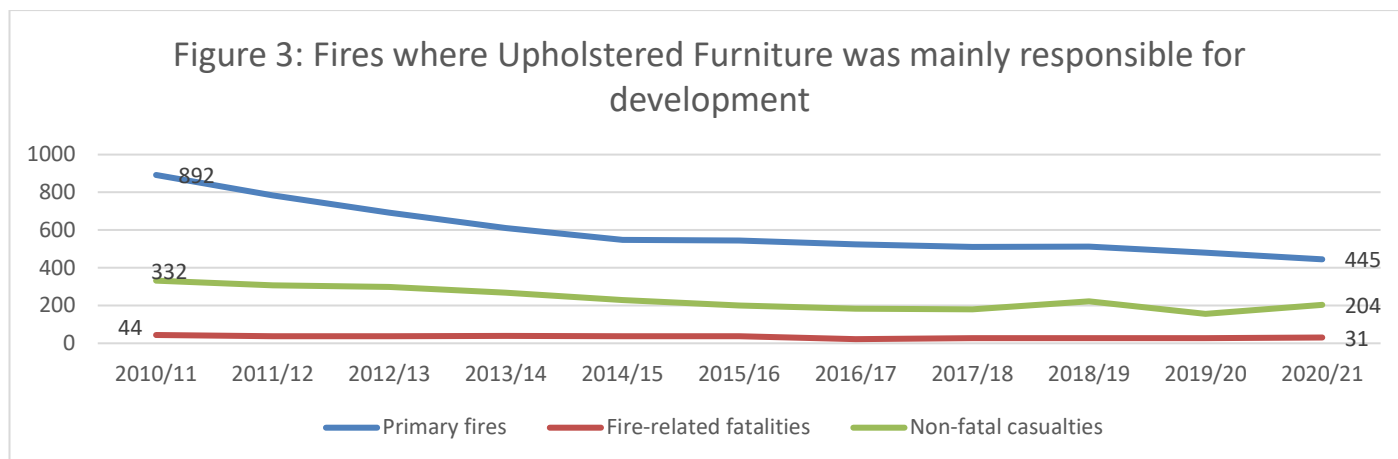
Fire Safety – Ongoing benefit

114. Option 1 aims to maintain and improve fire safety outcomes for domestic upholstered furniture. This is achieved by introducing a set of essential safety requirements that all domestic upholstered furniture in their final form must meet. A new flammability testing regime, set out in voluntary British Standards, will better reflect modern hazards and risks, and the fire safety of the final product. This better consideration of modern fire hazards is

³⁴ "UK business: activity, size and location," Office for National Statistics, accessed May 31, 2022, <https://www.ons.gov.uk/businessindustryandtrade/business/activitysizeandlocation/datasets/ukbusinessactivitysizeandlocation>, and stakeholder evidence.

expected to result in fewer domestic upholstered furniture fires and hence, fewer injuries, deaths and a reduction in property damage.

115. It is standard practice in an Impact Assessment to carry out an appraisal that compares costs against benefits. In this case it has not been possible to fully quantify the benefits of the proposals, particularly those arising from improved fire safety and a reduction in chemical flame retardants.
116. A breakeven analysis has been completed to illustrate the magnitude of benefits required in order for this policy proposal to have a positive Net Present Social Value (NPSV). To do this, DfT's value of a road traffic fatality or casualty is used as a proxy for the cost to life in fire. The published DfT value for a fatality (over a lifetime) is £2.1m, and the value given for a serious casualty is £230,000 (2021/22 prices).^{35 36}
117. Option 1 is estimated to have a net cost of £15.6m over 10 years, using the central scenario. Using breakeven analysis, 8 lives need to be saved over a 10-year period for the proposal to deliver a net benefit. For context, in the 10 years after the FFRs were introduced, fire related fatalities fell by 252 from 855 in a year to 603 in a year.³⁷ Additionally, Figure 3 shows that over the last 10 years there have been around 300 deaths relating to fire from domestic upholstered furniture. It is not therefore unreasonable for this policy to achieve a net benefit over a 10-year period as newly compliant products reach the market and enter consumers' homes.
118. Breakeven analysis can also be calculated either using the prevented cost of a serious casualty as a result of a fire or the prevented cost of a household fire (including property damage). With the cost of preventing a serious casualty being £230,000, 68 casualties would need to be prevented over the 10-year period, amounting to roughly 7 a year. Alternatively, in 2008, the cost of a fire was on average £9,000, comprising of response and consequential costs. In 2021 prices, this was around £12,000 per fire.³⁸ Over a 10-year period, 1,319 fires would need to be prevented for Option 1 to be a net benefit. For context, Figure 3 shows that across the 10 years there were 6,544 fires relating to domestic upholstered furniture. Considering the proposed measures to improve fire safety under Option 1, the prevention of 1,319 fires over 10 years also seems plausible.



³⁵ DfT estimates the value of a life at £1,652,729. Updated to 2021 prices this is £2,061,685. <https://www.gov.uk/government/publications/tag-data-book>. A4.1.1. November 2021 v1.17 Version Given in 2010 prices

³⁶ DfT estimates the value of a serious casualty at £184,492. Updated to 2021 prices this is £230,143.

<https://www.gov.uk/government/publications/tag-data-book>. A4.1.1. November 2021 v1.17 Version Given in 2010 prices

³⁷ "Fire statistics data tables," Home Office Fire Statistics series FIRE 0501, accessed April 20, 2022, <https://www.gov.uk/government/statistical-data-sets/fire-statistics-data-tables#fatalities-and-casualties>.

³⁸ "The economic cost of fire: estimates for 2008," Department for Communities and Local Government, February 2011, <https://webarchive.nationalarchives.gov.uk/ukgwa/20121108165934/http://www.communities.gov.uk/documents/corporate/pdf/1838338.pdf> (Table 23)

Non-monetised wider impacts of Option 1

119. As well as maintaining and improving fire safety, Option 1 is expected to deliver several wider benefits. Given the uncertain nature of their scale they have been qualitatively outlined below.
120. Health – Option 1 addresses the health concerns associated with the use of chemical flame retardants in domestic upholstered furniture. It introduces a package of measures to ensure chemical flame retardant use is safe and encourages manufacturers to use less and develop alternative, non-chemical methods of making upholstered furniture fire safe. By reducing the use of chemical flame retardants, human exposure will be reduced, and this will lead to a long-term benefit to human health, particularly in the case of babies and young children where chemical flame retardant exposure risk is higher.
121. Environment – Option 1 addresses the environmental issues associated with the use of chemical flame retardants through the proposed package of measures to reduce the reliance on them to ensure products are safe. In addition, the new requirement to permanently label a product for chemical flame retardants will enable waste operatives to identify the appropriate disposal method, including incineration of the product, to ensure the chemical flame retardants are destroyed and do not contaminate the environment.
122. Compliance – Option 1 aims to clarify the scope of products to which the new approach applies and the settings in which domestic upholstered furniture must meet the new approach requirements. As well as supporting manufacturers, it will also clarify obligations for re-upholsterers and distributors of second-hand products. This is expected to result in more consistent levels of compliance and therefore safer products across the board. Along with improved traceability requirements, this clarification will make enforcement easier and alleviate pressure on Local Authority Trading Standards, the relevant enforcement authority. Enforcement will be further enhanced by extending the time available to take enforcement action against non-compliant businesses from 6 months to 12 months. Improving enforcement powers is likely to lead to increased compliance as economic operators are at greater risk of legal action in cases of non-compliance.
123. Innovation – Removing the prescriptive flammability tests and adopting a set of essential safety requirements will enable businesses to approach compliance more flexibly enabling them to be more innovative in product design and manufacture. This in turn may result in more products being brought to market which do not rely on the use of chemical flame retardants to meet requirements, whilst maintaining or even improving fire safety. If manufacturers innovate to meet the new requirements without using chemical flame retardants, there may be spill over effects to other industries who may be able to benefit from these new innovations.

Summary of Monetised Costs/Benefits of Option 1 over 10 Years

124. These costs and benefits are over a 10-year period and summarise all the expected monetised impacts on businesses affected by Option 1. Costs which are ongoing have been discounted by 3.5% each year in line with HMT guidance.³⁹

³⁹ “The Green Book: appraisal and evaluation in central government,” accessed May 30, 2022, <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>

Table 19 - Sum of Benefits – Monetised

Benefit	One-off/Ongoing	Best Estimate
Removal of display label from all products in scope	Ongoing	£22,503,000
Total		£22,503,000

Table 20 - Sum of Costs - Monetised

Costs	One-off/Ongoing	Best Estimate
Familiarisation	One-off	£452,000
New permanent label redesign	One-off	£6,338,000
Technical File Storage Upgrade	One-off	£30,061,000
Design of new permanent label for re-upholstered/repaired products	One-off	£820,000
Printing new permanent label for re-upholstered/repaired products	Ongoing	£439,000
New permanent label design for outdoor furniture that does not comply with the regulations	One-off	£57,000
Total		£38,093,000

Table 21 – Sum over the 10-year appraisal period

Total Benefits	Total Costs	Net Outcome
£22,503,000	£38,166,000	-£15,663,000

125. Over a 10-year period, the net outcome of the new regulations based on the evidence available will be a net cost of £15.6m, averaged to £1.6m a year. This is the case, even after accounting for additionality, as option 0 is baselined at zero and all impacts would not happen in the absence of the intervention. This analysis does not account for any of the non-monetised, unquantifiable impacts of the proposals in Option 1, primarily fewer injuries, deaths and less damage to property as a result of improved fire safety, the health and environmental benefits of reducing the use of chemical flame retardants and amending the scope, and the impact of changes to flammability testing.

Option 2 – Revoke the FFRs (and rely on GPSRs)

126. Option 2 proposes to revoke the FFRs and rely on GPSRs for furniture fire safety. Costs and benefits of this option, relative to the counterfactual, are set out below.

Familiarisation – One-off cost

127. Whilst firms will need to be aware of what is expected under the GPSRs in terms of fire safety, they should already be familiar with the GPSRs, as the safety of domestic upholstered furniture, in all aspects other than fire safety, falls under the GPSRs. Therefore, it is assumed that very minimal familiarisation is required, in respect of fire safety requirements, for affected businesses under Option 2.

Labelling – Ongoing benefit

128. If the FFRs were to be revoked, products previously in scope of the FFRs would no longer need to meet the labelling requirements set out in them. However, those products would need to meet the requirements under the GPSRs.
129. Under the GPSRs, manufacturers would need to provide consumers with the relevant information to enable them to assess the risk inherent in a product throughout the normal or reasonably foreseeable period of use (where such risks are not immediately obvious) and to take precautions against those risks. Manufacturers would also need to allow for traceability by indicating on the product or its packaging the name and address of the manufacturer and product reference or batch numbers. These requirements, which are for manufacturers to interpret, are likely to partially offset the benefits of not having to comply with the permanent labelling requirement under the FFRs. There is however likely to be a benefit against the counterfactual from not having to affix a second label (the display label required under the FFRs).
130. The same calculation has been done as was estimated for the removal of the display label in Option 1. This estimates a benefit of **£22,503,000** over 10 years (see Table 6) across all affected businesses.

Testing – Ongoing benefit

131. Revoking the FFRs and relying on the GPSRs would mean that products no longer need to undergo flammability testing as prescribed in the FFRs. They would however need to demonstrate compliance with GPSRs. Manufacturers generally rely on voluntary European standards to demonstrate that their products are safe. In terms of fire safety, these standards are less strict than those set out in the FFRs, and fewer chemical flame retardants are required to meet them, reducing ongoing compliance costs.
132. However, this benefit is not guaranteed as manufacturers may continue to test their products in the same way they currently do under the FFRs to demonstrate the product is fire safe and complies with the GPSRs. If that were the case, the same testing and chemical flame retardant cost would be required, and therefore no benefit would be realised in relation to testing and chemical flame retardant costs under Option 2.

Fire Safety – Ongoing cost

133. Revoking the FFRs and relying on the GPSRs for fire safety of products concerned would weaken fire safety requirements compared to the counterfactual. This does not meet the policy aim of maintaining and improving fire safety. This would likely lead to an increase in house fires caused by flammable domestic upholstered furniture, resulting in an increase in injuries, death and property damage.
134. Using the same figures as paragraphs 109-111, the value for a fatality (over a lifetime) is £2.1m, the value for a serious casualty is £230,000 (2021/22 prices) and the cost of a fire is £12,000. Weakening fire safety requirements is likely to result in costs which outweigh the benefits realised under Option 2. For costs to outweigh the benefits of this option, there would have to be 11 more deaths due to fires from upholstered furniture, 98 more casualties, or 1,903 more house fires would need to occur.
135. There may also be an indirect cost to businesses as a result of recalls, corrective action and insurance claims. It is not possible to quantify these costs.

Non-monetised wider impacts of Option 2

136. Health –To an extent, Option 2 addresses some of the concerns associated with the use of chemical flame retardants in domestic upholstered furniture and furnishings. Manufacturers may use less chemical flame retardant as a result of less stringent flammability tests to demonstrate compliance with GPSR 2005. This could result in positive

health impacts due to reduced exposure to chemical flame retardants. This would not be the case if manufacturers continue to use the current testing approach to demonstrate compliance with GPSRs. Any health benefit as a result of reduced chemical flame retardant exposure is likely to be offset by an increase in death and injury as a result of weaker fire safety requirements. Furthermore, Option 2 would not deliver the package of measures proposed under Option 1 to ensure chemical flame retardant use is safe, to encourage and enable manufacturers to use less of them and to develop alternative, non-chemical methods of making upholstered furniture fire safe. Consumers would not benefit from the information provided on the label about chemical flame retardant use proposed under Option 1, missing the opportunity to shift consumer demand away from products containing chemical flame retardants, and instigate change in supply to meet that demand.

137. Environment – As above, Option 2 may lead to less chemical flame retardants used in domestic upholstered furniture and this would be beneficial for the environment. Option 2 would miss the opportunity to label for chemical flame retardants proposed under Option 1, which would not support waste disposal and reduce environmental contamination.

Summary of Monetised Costs/Benefits of Option 2 over 10 Years

138. These costs and benefits are over a 10-year period and summarise all the expected monetised impacts on those affected by option 2. Costs which are ongoing have been discounted by 3.5% each year in line with HMT guidance.⁴⁰

Table 22 – Sum of Benefits – Monetised

Benefit	One-off/Ongoing	Best Estimate
Removal of display label from product in scope of current FFRs	Ongoing	£22,503,000
Total		£22,503,000

Table 23 – Sum over the 10-year appraisal period

Total Benefits	Total Costs	Net Outcome
£22,503,000	£0	£22,503,000

139. Over a 10-year period, the net outcome of Option 2 based on the evidence available will be a net benefit of £22.5m, averaged to £2.3m a year. This is the case, even after accounting for additionality, as option 0 is baselined at zero and all impacts would not happen in the absence of the intervention.

Overall Summary

140. Although Option 2 is expected to lead to a net benefit from the monetised estimates for manufacturers, compared to the counterfactual, it is likely to lead to an increase in serious injury, death and property damage resulting in significant unquantifiable costs. Therefore, Option 2 is not the preferred option.
141. Conversely, although Option 1 is expected to lead to a net cost to businesses from the monetised estimates, it is the preferred option because it is likely to deliver the policy objectives and there are significant unquantifiable benefits, which have been explained qualitatively. Importantly, these include improved fire safety and the environmental and health benefits associated with a reduction in the use of chemical flame retardants as a

⁴⁰ “The Green Book: appraisal and evaluation in central government,” accessed May 30, 2022, <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>

result of the proposed package of measures to enable and encourage a reduction in their use. Therefore, Option 1 is the preferred option.

142. In Option 1, through breakeven analysis, saving 8 lives over 10 years or reducing the number of fires by 1,319 over 10 years yields a net-benefit. As calculated in the breakeven analysis in paragraph 111, this only requires the policy to incur a 1.7% fall in fire deaths from 2020/21 for it to deliver a net-benefit relative to the counterfactual, while a 4.2% increase in deaths from 2020/21 levels would make the net positive impacts of Option 1 outweigh Option 2.

Ancillary Option 1 Factors

Risks

Guidance and dissemination

143. The Office for Product Safety and Standards anticipates that businesses will need support and guidance initially to familiarise themselves with the proposed changes. To support businesses, the Government will publish guidance on gov.uk. The guidance will clearly set out the requirements that businesses will need to meet. Guidance can be disseminated via Trade Associations, Test Houses, and Local Authority Trading Standards.
144. Small and medium sized enterprises make up a vast proportion of the industry and it is likely that they will benefit most from the guidance.

Fire Safety

145. Some stakeholders may interpret that the new approach will lower fire safety levels of domestic upholstered furniture, because of the proposal to remove a number of items from the scope of the regulations and the proposal to remove mandatory testing standards and replacing them with essential safety requirements. It is important to emphasise that proposals to amend the scope are evidence-based and reflect a better management of the safety risks. With regard to the proposal to replace mandatory standards with voluntary standards, the intention is to make compliance with the new approach more flexible to encourage innovation and to enable businesses to employ a number of approaches to support a reduction in chemical flame retardant use. Furthermore, products will have to meet essential safety requirements rather than prescribed tests, and this ensures delivery of desired safety outcomes.
146. This outcomes-based approach is currently well established within the UK's product safety framework. It is expected to maintain and, in some respects, improve fire safety. The new approach will also take account of modern hazards and ignition sources, and will more accurately reflect the fire safety of the final item, as it would exist in the home.

Unintended consequences

External events

147. High-profile, fire-related incidents, such as the catastrophic fire at Grenfell Tower, raise awareness of the importance of fire safety. Businesses become more alert to fire safety risks and may take voluntary action to improve the fire safety of their products. Furthermore, Government has recently introduced a number of new legislative measures in this arena including the Fire Safety (England) Regulations 2022, Fire Safety Act 2021 and Building Safety Act 2022. This may affect the positive impact of the new approach, as other measures play a greater role in keeping consumers safe from fire.

Chemical flame retardant information on the new permanent label

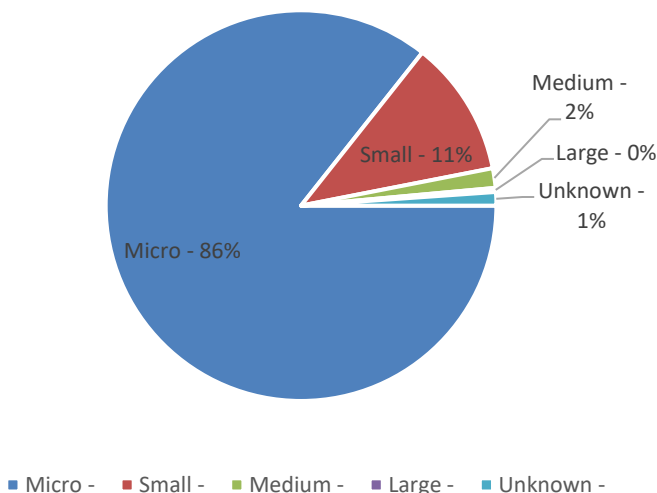
148. One of the purposes of including information regarding chemical flame retardants on the new permanent label is to provide information to consumers and support informed purchasing decisions. There is a risk that the list of chemical flame retardants may be

alienating for the average consumer and in fact may lead to concern if consumers seek further information online. The potential impact of this is that consumers avoid purchasing products which contain potentially hazardous chemicals, which will drive the furniture industry towards producing chemical flame retardant-free products. This fulfils the objective of encouraging a reduction in the use of chemical flame retardants in domestic upholstered furniture. Government has considered this risk and the potential to provide reliable and accurate information in respect of chemical flame retardants to support informed purchasing decisions.

149. Equally, the decision not to take a view on which chemical flame retardants, or types of chemical flame retardant, should be used in furniture could have wider implications. The chemicals remain regulated by UK REACH but this is limited in its ability to specifically consider their use in domestic upholstered furniture. This could lead to industry promoting chemicals they describe as having 'green' credentials. Consumers may gain a false confidence from these "green" chemicals where the full risks or benefits of chemicals are only identifiable in the longer term.

Small and Micro Business Assessment

Figure 4 - Businesses Affected by Size



150. The majority of the businesses that are affected by the FFRs are classified as small and medium sized enterprises (SMEs). 86% are Micro businesses comprising of 0 to 9 employees, 11% are small businesses (10-49 employees), and 2% are medium sized businesses (50 to 249 employees). This means that 98.5% of businesses affected by the FFRs are SMEs. This is just slightly lower than the total UK business population of which 99.9% of businesses are SMEs.⁴¹
151. Generally, it is considered that costs will be similar for firms of all sizes, however in some cases, SMEs will miss out on economies of scale that larger firms benefit from.
152. SMEs are not exempt from the new approach because, for consumer protection purposes, they must produce goods that are as safe as those produced by a large business. Otherwise, this would lead to a significant proportion of domestic upholstered furniture being unsafe, which does not meet the policy objective.
153. SMEs may be disproportionately affected by the various changes proposed under the preferred option (Option 1). For example, they will not benefit from economies of scale with

⁴¹ "Business population estimates for the UK and regions 2021: statistical release," Department for Business, Energy and Industrial Strategy, October 7, 2021, accessed on April 5, 2022, <https://www.gov.uk/government/statistics/business-population-estimates-2021/business-population-estimates-for-the-uk-and-regions-2021-statistical-release-html>

testing or labelling. However, these costs are justified with the fire safety benefits to consumers, as well as any disproportionate increase in cost for SMEs to comply with the new regulations likely to be passed on to consumers.

154. The new regulations will be implemented in a way that reduces the impact of additional costs for SMEs as much as possible. Mitigating factors include ensuring an appropriate lead time, including waiting for the new British Standards to be available, before the new approach takes effect and the preparation of clear guidance.

Equalities Impact

155. Section 149 of the Equality Act 2010 requires the Government to have due regard to promoting equality of opportunity, eliminating discrimination, and fostering good relations between groups.
156. There are a number of issues relating to people with protected characteristics that are considered:

Age

- i. Babies, children and the elderly spend more time on/in domestic upholstered furniture and are therefore more exposed to the effects of chemical flame retardants.
- ii. Removing certain baby products from the scope of the new approach will reduce exposure to chemical flame retardants but may increase the fire risk of these products. Research commissioned by the Office for Product Safety and Standards evaluated the relative risk of fire versus exposure to chemical flame retardants of a number of products, and the proposals to remove certain products from scope were informed by the results of this research. As part of their GPSRs obligations, manufacturers may need to reflect the policy change in their labelling to ensure the correct behavioural changes from parents/guardians.

Disability

- i. Blind people will not be able to read the information on the proposed new permanent label and the visually impaired will struggle to read small text.
 - ii. Vulnerable groups spend more time in/on domestic upholstered furniture and therefore are more exposed to chemical flame retardants.
 - iii. The new approach is designed to prevent a product from igniting. If the product does ignite, it must self-extinguish or burn slowly. This allows more time for a smoke alarm to be activated and allows people time to make an escape. This is more problematic for disabled people (physically disabled, blind, etc.).
 - iv. Learning disabled adults may struggle to read and understand labelling information.
 - v. Disabled people are less mobile and may do more shopping online. Online sellers might not clearly display safety information, and disabled consumers are less able to make an informed decision based on that information.
157. In addition, the following factors were considered:
- i. Reading ability – we considered people whose first language is not English, as well as illiteracy. They may not understand warnings and would therefore be unaware of the risks and alienated from information about the product.
 - ii. Likelihood of cigarette smoking – some socioeconomic groups are more likely to smoke than others and are therefore more at risk of domestic upholstered furniture fires.⁴²

⁴² "Adult smoking habits in the UK: 2019," Office for National Statistics, accessed on May 30, 2022, <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/bulletins/adultsmokinghabitsingreatbritain/latest#characteristics-of-current-cigarette-smokers-in-the-uk>

- iii. Flammability of emollient creams – people who suffer from skin conditions such as eczema rely on emollient creams. These creams can make their domestic upholstered furniture more flammable.⁴³
- iv. Living conditions – some groups are more likely to have kitchen equipment, including cooking equipment, and domestic upholstered furniture in the same room. Evidence shows that most (55%) house fires originate in the kitchen, as a result of cooking related activity, such as grill or chip pan fires.⁴⁴ These causes of fire are exacerbated by the close proximity of highly flammable domestic upholstered furniture.
- v. Second-hand domestic upholstered furniture – some groups are more likely to rely on second-hand domestic upholstered furniture than others. Second-hand products may be less fire safe than new products, as evidence shows that some chemical flame retardants leach out during the product’s life.⁴⁵
- vi. People on a low/no income may hold onto older domestic upholstered furniture which could be less fire safe than newer domestic upholstered furniture.⁴⁶
- vii. The overall impact on the specific groups is summarised in the table below.

Table 24 – Affected Protected Characteristics

Protected Characteristic	Expected Impact
Disability	Minimal
Race	Minimal
Age	Minimal
Gender reassignment	None
Religion or belief	None
Pregnancy & Maternity	None
Sexual orientation	None
Sex	None
*Marriage & Civil Partnership	None

158. Ways in which to mitigate the negative equalities impacts have been considered, such as the use of pictograms instead of writing, and making available the information in several and alternative ways such as via an online source which can be easily translated. These possible mitigations need to be balanced with what is reasonable, proportionate and practicable for manufacturers. It is recognised that those who are disadvantaged as a result of the proposed format in which the information is provided can be supported in accessing the information via a third party. For example, a blind person can ask for assistance in the shop and can have the information read to them.
159. Some of the protected characteristic groups will benefit disproportionately from the proposed policy. For example, it is likely that people who are physically disabled spend more time in or on domestic upholstered furniture such as a sofa or bed. The same can be said about older people or babies. The policy protects these users from fire risks and considers how the use of chemical flame retardants affects them. Additionally, the policy intent is to prevent ignition of domestic upholstered furniture and, where ignition does occur, slow the spread of a domestic fire to allow consumers more time to escape. This benefits

⁴³ “Emollient cream build-up in fabric can lead to fire deaths,” Medicines and Healthcare products Regulatory Agency, December 2018, accessed on May 30, 2022, <https://www.gov.uk/government/news/emollient-cream-build-up-in-fabric-can-lead-to-fire-deaths>

⁴⁴ “Characteristics of Modern Domestic Fires and the implications for product performance testing,” BRE Global, June 2021

⁴⁵ Susan Shaw et al, “Halogenated Flame Retardants: Do the Fire Safety Benefits Justify the Risks?,” Reviews on Environmental Health, Volume 25, No. 4, 2010

⁴⁶ Nia Bell and David Fitzsimons, “Do we know enough about the flame retardant chemicals in our beds?” A briefing paper for Silentnight Group, November 2018

all people in society, particularly those who may need more time to escape such as disabled or older people.

160. Lower socio-economic groups may benefit from these proposals. Currently second-hand domestic upholstered furniture such as sofas are hard to resell resulting in them being disposed of. With the proposed labelling requirements, and removal of testing requirements, more second-hand domestic upholstered furniture and furnishings can enter the market, benefiting those on a lower income who might not be able to purchase new products.
161. The proposed policy should have a limited adverse or disproportionately negative impact on persons or groups with protected characteristics. The policy has considered ways of mitigating these negative impacts, but there are, so far as can be understood, no viable solutions that do not overly burden business or government. The policy will deliver fire safety of domestic upholstered furniture which will benefit all persons, regardless of whether they have a protected characteristic or not.

Family Test

162. The Family Test brings a family perspective into policy making. It helps ensure impacts on family relationships and functioning, both positive and negative, are recognised in the process of policy development and help inform the policy decisions made by Ministers.
163. The policy proposed under Option 1 is expected to have a positive impact on family relationships and functioning. The proposed measures to improve furniture fire safety and encourage and enable the reduction of chemical flame retardant use contribute to general family health, safety and wellbeing. New information requirements for the new permanent label empower parents to make informed decisions in relation to the safety of their children. Furthermore, removing certain baby products from the scope of the new regulations has the potential to make these products cheaper due to reduced compliance costs that are passed on to the consumer; this supports new parents at an expensive time in their lives.

Impacts on International Trade

164. This proposal is a policy amendment rather than a completely new policy, and it is believed that it should not create any additional barriers to those already created by the FFRs. Processes have been followed to notify the World Trade Organisation and the European Commission in accordance with technical barriers to trade requirements. This includes the requirements under the Technical Standards and Regulations Directive (TSRD - 2015/1535/EU) in respect of the application of the proposed new regulations to Northern Ireland. Like the existing regulations, new regulations will create a barrier to trade for manufacturers/suppliers operating in other countries where fire safety requirements for domestic upholstered furniture products are less stringent. However, this is justifiable on the grounds of consumer safety, and overseas manufacturers can produce domestic upholstered furniture which complies with the new regulations if they wish to export to the UK.

Monitoring and Evaluation

Short Term

165. In the short term, monitoring and evaluation will include the evaluation of both consumer and business attitudes and experiences of the new approach. The Office for Product Safety and Standards has pre-existing mechanisms in place for this, including the bi-annual Product Safety and Consumers research, and the annual Industry Attitudes Tracker. Both include surveys and focus groups/interviews to gather insights into areas of interest to the Office for Product Safety and Standards, including fire safety labelling. Consumer research of this kind is expected to continue to be an integral evidence requirement of the Office for Product Safety and Standards.

166. Waves 1 and 2 of the Product Safety and Consumers research (Nov 2020 and May 2021) included questions concerning awareness and engagement with the fire safety of domestic upholstered furniture, through questions related to the labelling of those products, awareness of the use of chemical flame retardants in those products, and prioritisation of fire safety when purchasing domestic upholstered furniture. This could be treated as a baseline from which to expand on in future waves to monitor and evaluate the impact of these elements of the new approach on consumer purchasing behaviour. For example, future waves of the Tracker could ask about the likelihood of consumers purchasing chemical flame retardant-free products as a result of increased awareness about the use of chemical flame retardants thanks to the product's permanent label. Responses will indicate the effectiveness of proposals to encourage and enable a reduction in the use of chemical flame retardants, and whether any policy response is required.
167. The Product Safety and Consumers survey has a large sample (10,000 each wave) and enables robust analysis by different social and demographic backgrounds. Any trends that may appear through the analysis will allow the Office for Product Safety and Standards to examine how the new approach is impacting the protected social characteristics.
168. As well as the surveys, additional research can also be commissioned to enable ongoing monitoring and evaluation and measure the impact of the new policy against the policy objectives.

Long Term

169. The tracker surveys have been commissioned on a long-term basis and can also be used to obtain primary research into consumer and business attitudes and experiences of the new regulations in the long-term. Budget and resource are already in place for this. Consumer research of this kind is expected to continue to be an integral evidence requirement of the Office for Product Safety and Standards.
170. The new approach will provide for a statutory review every 5 years to monitor and evaluate the impact of the changes implemented. This will include a Post Implementation Review survey. Evidence gathered will provide the Office for Product Safety and Standards with periodic insights into whether the new approach has met its objectives and what impact the new approach has had on different types of businesses (manufacturers, suppliers, distributors, etc.). These surveys are particularly useful to examine, in detail, the monetary impacts on businesses, and to gain specific feedback from businesses regarding the effectiveness of the new approach. Evaluation questions could include:
 - I. Has there been a reduction in domestic fire incidents, where domestic upholstered furniture is the first item ignited?
 - II. Do businesses feel regulatory barriers to bringing innovative products to market have been reduced?
 - III. Do businesses and enforcement authorities feel better informed about the requirements of the new approach to ensure product compliance and effective enforcement?
171. Further monitoring can also be carried out to examine the effectiveness of the new approach in reducing domestic fire incidents, where domestic upholstered furniture is the first item ignited as well as the longer-term environmental impact in relation to chemical flame retardants. It will be a number of years before the new regulations realise an impact on these fronts as consumers gradually update their household furniture. The Office for Product Safety and Standards will work with the Home Office and the Department for Environment, Food and Rural Affairs, as leads on fire safety and environmental issues respectively, to analyse and evaluate relevant evidence and to avoid duplication of this work. This longer-term monitoring and evaluation will enable the Office for Product Safety

and Standards to amend the policy to ensure it is meeting its objectives and to respond to any unintended negative impacts.

172. When combined with the short-term monitoring and evaluation methods, the Office for Product Safety and Standards will have a thorough understanding of how the new approach has impacted businesses and consumers and whether it has delivered the policy objectives.

Logic Model

