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Report

Revised impact assessment of Strengthening Financial Resilience proposals

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We are publishing this revised impact assessment of our Strengthening Financial Resilience proposals alongside the statutory consultation. It describes our assessment of the consumer benefits of the final policy options, the distributional impact across consumers, their impact on competition and innovation in the retail market, and what it means in practice for individual suppliers.

Contents

Executive summary

As part of the Strengthening Financial Resilience policy consultation in June, we published a detailed impact assessment on proposals to require suppliers to protect their customer credit balances (CCBs) and renewable obligation (RO) receipts alongside a new capital adequacy regime. This report describes our updated impact assessment of the proposals, drawing from the feedback that stakeholders gave us as part of the policy consultation, other views that we have gathered, and our new analysis conducted on the latest data available.

Problem under consideration and policy objectives

Recent events exposed that many energy suppliers had insufficient capital to manage their businesses. We believe that a root cause was moral hazard associated with suppliers not bearing the full cost of their risk-taking. Whilst 30 suppliers have exited since early 2021, this is an issue that needs to be addressed on an ongoing basis to ensure that existing and new suppliers face appropriate incentives to manage their risks in the best interests of consumers.

The continued wholesale market volatility means suppliers, particularly those that have not re-capitalised, continue to face heightened financial pressures. We therefore still believe that there is a strong case for intervention in the consumer interest.

Domestic consumers have a strong interest in building financial resilience of suppliers: in ensuring customers of failed suppliers do not suffer service disruption, consumers share some of the cost of supplier failure, including through mutualised credit balances, RO payments, and hedges. While we recognise that potentially adding any costs to consumer bills at a time of high energy prices is difficult, a more resilient sector is expected to bring consumer benefits and these benefits for consumers are expected to clearly outweigh the effect on consumers of any additional costs incurred by suppliers as a result of our proposals.

Options under consideration

The accompanying statutory consultation reflects refinements made to the proposals since policy consultation to meet the policy objective of reducing socialised costs of supplier exit while also balancing fairness, resilience, and competition. This impact assessment considers in detail the shortlist of:

1) Ringfencing of RO receipts & CCBs by domestic suppliers;
2) Ringfencing of RO receipts only by domestic suppliers;

3) Capital adequacy 'pillar 1' capital requirement for domestic suppliers, and
4) Combination of options 2) and 3).

We describe these options at a high-level in Section 3. More detail is provided in the main body of the statutory consultation.

Analysis used in this impact assessment

Whilst the exact benefits and costs are hard to measure precisely, partly because the costs and benefits are affected by external factors, our analysis is intended to provide confidence in the benefits being greater than the costs, and insight into whether the benefits of individual policies vary materially.

We have adopted a similar approach to the previous impact assessment,[1] albeit with significant refinements to our assumptions to reflect stakeholder feedback, especially on the cost of capital. Whereas we previously published an assessment of the longer-term view of the costs and benefits of the policy options in 'equilibrium', we have now explicitly considered the costs and benefits over the next six years. Section 4 describes the justification of our assumptions and impact assessment design. We welcome views on our methodology and analysis.

We continue to believe that the monetised consumer net benefits of the proposals are primarily derived from the improved supplier financial resilience such that the cost of 'insurance' (either through ringfencing protections and/or a capital requirement) is lower than the mutualised 'pay-outs' by consumers that would otherwise be expected.

We estimate the benefits via a quantitative framework whereby improvements in supplier financial resilience reduce failure risk, measured in line with improvements in credit rating metrics, and therefore also reduce the effective Weighted Average Cost of Capital (WACC). We assume this will come at a cost, as suppliers will have to hold more capital, and some of this will be passed onto customers through competitive pricing.

However, at least for suppliers that are highly risky pre-policy, the benefit of risk reduction significantly outweighs the cost, which is a key influence in our overall assessment below. Other consumer benefits relate to the lower social waste of inefficient switching and lower administration costs.

[1] Policy Consultation: Strengthening Financial Resilience | Ofgem

Findings

The impact assessment indicates that all the proposals put forward in this consultation should lead to an overall net benefit to consumers in the short- and long-term. There are greater savings for disengaged consumers (those less likely to switch), who are slightly more likely to be in vulnerable circumstances, hence the socially weighted impacts are slightly higher.

The assessment shows that our preferred option, to require suppliers to ringfence RO receipts and hold a minimum capital requirement, will create the greatest annual benefit to customers by the end of the evaluation period (2028), estimated at £167m per year.

Table 1: Monetised consumer benefits (2023-2028 average, £m per year)

	1. RO/CCB ringfencing	2. RO ringfencing	3. Capital adequacy		4. Capital adequacy + RO ringfencing	
			£110/cust	*£220/cust*	*£110/cust*	*£220/cust*
Net cost of CCB/RO protection	(24)	(10)	20	29	(2)	9
Cost of replacing hedges	41	32	82	208	96	218
Lower inefficient switching	41	31	28	47	42	55
Administrative costs	10	8	7	11	11	13
Removal of cheaper tariffs	(28)	(14)	(59)	(192)	(74)	(202)
Total	**40**	**47**	**78**	**102**	**74**	**93**
Total per customer (£)	2.55	2.95	4.95	6.48	4.68	5.90
Total per customer (socially weighted, £)	2.65	3.08	5.15	6.75	4.88	6.15

Our competition analysis suggests that the overall impact on competition from these measures should be positive. While we expect to see an increase in the price of the cheapest tariffs available, this should be more than balanced out by the reduction in Supplier of Last Resort (SoLR) and Special Administrative Regime (SAR) costs over the longer term, for the reasons explained elsewhere in this impact assessment. This outcome would also be positive from a distributional point of view.

Competitive dynamics are not included in our quantitative assessment. While on service quality, we see a neutral impact; in terms of innovation, our assessment suggests that there should be a positive impact. Indeed, these measures should lead to an improved competitive environment for the type of sustainable challenger suppliers that have historically delivered the most beneficial innovations.

1. Introduction

Context and related publications

1.1. This report provides Ofgem's updated impact assessment of our Strengthening Financial Resilience proposals. It accompanies our statutory consultation published on 25th November 2022.

1.2. This publication follows our policy consultation entitled Strengthening Financial Resilience published on 20th June 2022.[2] As part of that consultation, we published our initial impact assessment, which drew in part from work performed for us by the consultancy NERA. We published that analysis in full alongside that consultation.[3]

1.3. Our policy consultation, which closed on 20th July 2022, asked specific questions on our impact assessment. Based on stakeholder responses to those questions, further engagement we have undertaken, the latest and best information, we have updated our impact assessment.

Your feedback

1.4. Feedback on this impact assessment can be provided via responses to the statutory consultation. That consultation explains how to do that.

[2] Policy Consultation: Strengthening Financial Resilience | Ofgem
[3] Proposed Reforms on Protecting Credit Balances and Renewables Obligations | NERA

2. Policy objectives and rationale for intervention

Section summary

This section describes the policy objectives of the options under consideration and our assessment of the rationale for intervention. We refer to stakeholders' views expressed in the policy consultation. We use the policy objectives as the basis for understanding the potential effectiveness of the proposals in subsequent sections.

Problem under consideration

Position in policy consultation

2.1. Oxera showed in its report earlier this year[4] that ensuring suppliers maintain appropriate levels of equity capital, rather than relying on 'cost-free, risk-free' capital, is important in ensuring they have the right incentives. First, the injection of shareholders' private capital into a business means that the owners have money at risk in the event of insolvency, or 'skin in the game'. This reduces the risk of moral hazard (ie, incentives to take excessive risk). Second, the act of raising capital prior to entry, and/or on an ongoing basis, incentivises scrutiny and due diligence of a firm's business plans, as investors will want to assure themselves of its prospective and ongoing viability.

2.2. Ofgem have already taken steps to significantly reduce the likelihood and cost of future supplier exits through Direct Debit Rules and the Financial Responsibility Principle. However, we believe that there still exists a case for better capitalisation of suppliers.

2.3. A significant part of the cost of previous supplier failures has come from the mutualisation of CCB and RO payments which is passed onto customers. In the case of CCBs customers who pay their energy bill via a consistent direct debit payment, typically to build up customer credit balances (CCBs) over spring and summer when they use less energy for heating during these warmer periods. This balance is then drawn upon during the colder autumn and winter periods when more energy is

[4] Review of Ofgem's Regulation of the Energy Supply Market | Ofgem

consumed. If a supplier fails, then the CCBs are honoured by the Supplier of Last Resort (SoLR) that receives the transferred consumers. Whilst Ofgem appoints whichever SoLR provides consumers the greatest benefit, the SoLR can claim for the cost of honouring those CCBs.

2.4. Similarly, the Renewables Obligation (RO) supports the generation of renewable electricity through a system of tradable green certificates called Renewables Obligation Certificates (ROCs). Suppliers accrue an obligation (the RO) over a 12-month obligation period (1st April – 31st March) and have 5 months to settle their obligation either by paying into the buy-out fund by 31st August, presenting ROCs by 1st September or a combination of both. Suppliers are also allowed a 2-month late payment period between 1st September and 31st October in which daily interest rates are charged. In total, this adds up to the maximum of 19 months' worth of obligation that an insolvent supplier can default on. On failure, payments due under the RO scheme, above a threshold, are effectively insured through mutualisation. This means that the cost of a supplier failing to meet their RO due to insufficient funds and / or supplier failure, is borne by other suppliers - who pass the costs on to consumers in the form of higher electricity bills.

2.5. Overall, the cost of the supplier failures since September 2021, which is paid for by consumers on their bills, is estimated to be £2.5bn[5]. This figure is likely to increase and does not include the cost to the taxpayer of the Bulb Special Administration, recently estimated by the Office for Budget Responsibility to be £6.5bn[6].

2.6. Ofgem continue to have concerns that some suppliers are reliant on CCBs and RO receipts for a significant proportion of their capital base. Whilst suppliers did exit in 2021/22, we also need to consider protecting consumers from the harm of future market entrants who use risky business models by relying on CCBs and ROs as risk free capital and insufficiently capitalising. Ofgem must therefore consider a policy that can protect customers from the costs of supplier failure in the long- and short-term.

[5] Based on approved SoLR cost claims, Ofgem's minded-to position on claims currently subject to consultation, and announcements on mutualised RO payments.
[6] Economic and Fiscal Outlook, November 2022 | Office for Budget Responsibility

Consultation responses

2.7. Stakeholders who responded to the policy consultation were supportive of the intention to improve financial resilience and restore stability in the retail market. However, views were different on whether the proposals would have the intended impact. Some stakeholders expressed views that the proposals would reduce risk-taking, reduce the risk of supplier failure, and reduce mutualisation costs. Others have viewed the proposals as having a detrimental effect on competition with a disproportionate cost on smaller suppliers and increasing costs for customers during a time of high cost of living.

2.8. The stakeholders who were supportive of intervention believe the mutualisation of CCB and RO receipts had introduced a "moral hazard" issue. Stakeholders believe this has led to excessive risk-taking which, in the event of further supplier failure, would cause significant mutualised costs and disruption. Several of these stakeholders commented that the intervention would increase costs for customers but still be more efficient than the potential costs from supplier failure and the market disruption that would entail. Furthermore, these suppliers were confident the proposals would improve financial resilience and internalise the socialised cost of failures. One supplier had further expanded that it should be possible for all suppliers to be able to implement the measures quickly due to previous guidance regarding the Financial Responsibility Principle and long-term discussions about ringfencing CCBs.

2.9. The stakeholders who were unsupportive believe that these proposals are not an appropriate response given the current economic climate. Several stakeholders have expressed concern that the proposals will increase costs for the customers during a time of high cost of living. These stakeholders believe there are alternative measures that would provide a financially resilient market without the cost potentially outweighing the risk of their failure. A few stakeholders expressed additional concerns that these added costs will disproportionately affect smaller suppliers versus larger suppliers which would have an adverse effect on the competitive environment. For example, these additional costs on smaller suppliers could lead to more market failures or act as a higher barrier to entry which in turn will provide larger suppliers with a competitive advantage.

Our revised position

2.10. Recent events in the energy market have exposed that retail businesses have too often had insufficient capital to manage the business of supply. Whilst we recognise that, given the scale, pace and duration of the price shock in the gas market, there would have been some supplier failures, too many suppliers operated with insufficient risk management practices and capital to manage their commercial risks and protect consumers.

2.11. This is compounded by the moral hazard associated with suppliers not bearing the full cost of their risk taking though access to cashflows (CCBs and RO) that they do not have to pay back if they fail. This leads not only to poor risk management but also excessive risk-taking.

2.12. Under-capitalisation and excessive risk-taking by some suppliers has resulted in an increased risk of failure, which comes at a cost to consumers when suppliers fail. The costs include paying for capital that is mutualised in the event of a supplier failure such as credit balances, RO receipts and hedges as well as additional costs from switching and administrative costs.

Policy objective

Position in policy consultation

2.13. The proposals are designed to reduce the socialised costs of supplier exit by improving the robustness of suppliers to financial shocks and reducing excessive risk-taking while also reducing the impacts of cost mutualisation when suppliers fail. By reducing either the number of supplier failures or the cost of each supplier failure, or both, the policy options reduce the total socialised cost of supplier exit.

Figure 1: Socialised costs of supplier exit equation

2.14. The policy options aim to better capitalise suppliers to reach at least one of the following outcomes:

a) Improve robustness of suppliers to market shocks;

b) Reduce supplier's propensity to use CCBs and ROs as risk free capital, and

c) Ensure suppliers have sufficient capital to cover the cost of CCBs and ROs in the event of failure and avoid mutualisation across customers.

2.15. As a result of these outcomes, supplier failure will reduce. In addition, even when suppliers do fail, customers would no longer implicitly provide insurance for CCBs and RO as the costs would no longer be recovered through the SoLR levy.

Consultation responses

2.16. In the policy consultation, stakeholders expressed differing views on whether the ringfencing of CCBs and RO receipts would achieve the objective of increased financial resilience and suppliers bearing the appropriate cost of risk-taking. Several stakeholders agreed that ringfencing would lead to less risky business models which rely on the use of CCB and RO receipts. Other stakeholders were concerned the proposals would not have the intended effect of reducing the number of supplier failures and instead increase costs to customers.

2.17. The stakeholders who were supportive of the proposed policy commented on the opportunity for suppliers to benefit from unsustainable business models by taking advantage of CCB and RO receipts. These stakeholders generally believe the proposals would prevent suppliers from using risky business models and reduce the number of supplier failures. One of the stakeholders acknowledged that these policies, whilst reducing costs of mutualisation, would still increase costs for customers but would lead to an overall greater benefit.

2.18. A few large suppliers stated ringfencing would cause little to no impact on their day-to-day business because they are sufficiently capitalised or already protect credit balances. Two of them stated these proposals should already be a requirement across the industry.

2.19. Stakeholders who were unsupportive of the proposals commented that they would increase prices for customers. Their estimates ranged from £8 to £37 per customer per year.

2.20. Two stakeholders expressed concerns that the interventions will weaken the financial resilience of small suppliers who are more likely to need additional capital and the additional costs would lead to more market failures in the short-term.

2.21. A few stakeholders commented that, with the risk of mutualisation being considerably lower due to many risky suppliers leaving the market in recent years combined with the implementation of the FRP, a lighter touch regulation would be a

more proportionate approach. One stakeholder said that Ofgem should prioritise RO over CCB due to having a greater material risk than credit balances. One stakeholder expressed concerns that the interventions will reduce the liquidity of the ROCs market because "the procedure might prove too complex in releasing monies to use towards the purchase of funds".

Our revised position

2.22. We believe that it is in consumers interests to ensure that suppliers have the financial resilience to deal with shocks and the incentives to use their capital in a sustainable way. Achieving this will reduce the number of supplier failures and in turn reduce costs to consumers. While we recognise that adding any costs to consumer bills at a time of high energy prices is difficult, we judge that there is a consumer interest overall to increase prices for the right level of resilience.

3. Description of options considered

Section summary

This section describes the relevant design details of the options assessed within this impact assessment. We also set out our understanding of the 'status quo' to illustrate what other policies have been considered part of the base line.

Definition of the 'Status Quo'

3.1. This analysis reflects our latest and best view of the impact of our recent regulatory changes and Government interventions. We consider all that has been done to reduce the risk facing suppliers for the benefit of consumers, as well as the monitoring and compliance work that Ofgem does to ensure suppliers comply with existing licence conditions. Those significant steps include, but are not limited to:

a) The move to quarterly price cap updates;

b) Changes to price cap allowances (including backwardation): while it is difficult to assert the consumer bill impact of the additional allowances, it does provide greater stability and resilience to the market;

c) Market compliance reviews including on asset control;

d) Introduction of quarterly supplier stress-testing; and

e) Strengthened rules on Direct Debits.

3.2. We have also considered the interaction with our hedging and asset control policies, as well as our existing Financial Responsibility Principle. We have noted the recent extension of the government's Energy Price Guarantee by another year.

Options considered and rejected

ATOL-style co-insurance scheme

3.3. Prior to our policy consultation we considered the option of an ATOL-style co-insurance scheme in which suppliers pay a fixed fee per customer to cover the costs of future supplier failures. That fee would be determined ex-ante to best reflect the likelihood and cost of supplier failure. As such, it has similarities to the current SoLR

levy mechanism except that the consumer charges are defined ex-ante rather than ex-post. At least one respondent supported such a scheme.

3.4. We re-considered the option in full, and we do not consider this option will directly achieve the objectives we proposed. This is on the basis that:

- Ofgem and others have identified the moral hazard facing suppliers as a key market failure and one we are seeking to address through this policy. The flat, fixed fee nature of the scheme means that it **fails to address the moral hazard**, focusing solely on avoiding explicit cost mutualisation after supplier failure. We think it is a significant issue that a supplier pursuing a riskier business model with less resilience would pay the same fee as one with greater resilience.
- If this option does not address the moral hazard, and we were to not address the moral hazard issue further in other policies, then higher risk suppliers would be able to undercut the market for a longer period. This could create a market with more high-risk suppliers which is contrary to our objective of a resilient market.
- Whilst ex-ante payments would provide consumers with the advantage of 'smoothing' costs, particularly into years of lower wholesale costs, we do not believe this would address the supplier's propensity to use CCBs and ROs as risk-free capital. The mechanism is unlikely to drive the changes in supplier businesses to produce the wider benefits that are significantly larger than the mutualised costs of CCBs/RO receipts (eg, reduction in mutualised wholesale costs through SoLR). Therefore, we do not believe this benefit outweighs the material disbenefits of the proposal.
- A more complex mechanism that sought to address the moral hazard, possibly through setting fees that reflected the individual supplier risks, would be too difficult to implement.
- By design the ATOL scheme is to protect customers from losing their money and the Civil Aviation Authority (CAA) is consulting on reforming the ATOL scheme to better reflect the risk each company poses.[7]

[7] ATOL Reform: Summary of responses and next steps | CAA

Ringfencing non-domestic RO payments

3.5. As signalled in the June policy consultation,[8] we considered whether it is in consumers' interests to extend obligations for ringfencing of RO receipts to non-domestic suppliers. As well as drawing upon consultation responses and engagement on this issue, we have since undertaken further analysis of the relative costs and benefits to consumers.

3.6. We recognise that non-domestic suppliers comprise a substantial proportion of the RO liabilities at around 65%.[9] However, there are several factors that make the balance of benefits vs costs less attractive in the non-domestic sector:

a) A typical supplier failure in the non-domestic sector drives much less cost mutualisation than in the domestic sector, primarily because we do not provide credit balance protection nor price cap tariff protection to non-domestic customers of failed suppliers.

b) There is a lower risk of failure in the non-domestic supplier market compared to domestic suppliers, as indicated at least by the relatively fewer failures arising from the wholesale price spike during the recent gas crisis (21 domestic suppliers, 3 non-domestic suppliers and 7 with domestic and non-domestic customers). This makes the benefits of protecting RO payments for non-domestic suppliers lower in comparison to the costs.

3.7. We must weigh this against the possibility of non-domestic consumers benefiting from improved resilience in the domestic sector through lower cross-industry mutualised costs.

3.8. Given Ofgem do not have evidence to believe the failure rate of non-domestic suppliers will significantly increase, we do not see the extension of the policy to non-domestic suppliers as beneficial to achieving our policy goal.

[8] Policy Consultation: Strengthening Financial Resilience | Ofgem
[9] Ofgem State of the Energy Market: 2019 Report

Main options under consideration

3.9. The policy consultation in June focused on ringfencing CCB and RO payments. Ofgem have developed further options to meet the policy objective of reducing socialised costs of supplier exit while also balancing fairness, resilience, and competition. Our shortlist of options tries to find the optimal components of the proposals:

1) **Ringfencing of RO receipts & CCBs** through insolvency remote mechanisms.
2) **Ringfencing of RO receipts only**.
3) **Capital adequacy 'pillar 1' capital requirement**.
4) **Combination of options 2) and 3)**.

3.10. All of these options are considered alongside the proposal for an enhanced Financial Responsibility Principle, which includes more prescription to prevent 'over reliance' on CCBs (see Section 6).

Option 1: Ringfencing of RO receipts and CCBs

3.11. This was the main proposal considered in the June impact assessment whereby suppliers are required to ringfence RO receipts and CCBs through an Approved Protection Mechanism which could include letters of credit, third party guarantees, or surety and some parent company guarantees, or protecting an amount equivalent to CCBs.

3.12. We assume that domestic suppliers are required to protect **100% of their RO receipts from domestic customers for 2023/24 scheme year from 1st April 2023**. Thereafter, they must protect 100% of receipts in subsequent years. For ringfencing of CCBs we assume that domestic suppliers are required to protect **30% of gross CCBs from domestic customers from 1st April 2023**.

Option 2: Ringfencing of RO receipts

3.13. Under this option RO receipts are considered in the same way as option 1. Suppliers are not required to ringfence CCBs, although they must comply with the proposed Enhanced Financial Responsibility Principle.

Option 3: Capital adequacy 'pillar 1' capital requirement

3.14. Under this option domestic suppliers would be required to hold a **minimum capital requirement equal to £110-£220 per domestic customer by end March 2025**. The measure is defined through accounting standards in terms of the suppliers' balance sheet net assets (fixed and current assets less current and non-current liabilities).

3.15. Consistent with the Enhanced Financial Responsibility Principle, we assume that domestic suppliers are required to reach zero net liabilities by the end of March 2024.

Option 4: Combination of options 2 and 3

3.16. Under this option domestic suppliers would be required to hold both a minimum capital requirement as set out in option 3 as well as ringfencing their RO receipts in the same way of option 2.

Considerations of the option design

Scope of customer credit balances (gross vs. net CCBs)

3.17. As set out in Section 2, one policy objective is to remove incentives for suppliers to take excessive risk and to reduce the mutualisation costs directly associated with CCBs. In finding an appropriate policy option which meets this objective while balancing pressure on suppliers' financial stability and creating value for money, we have considered the ringfencing of net credit balances[10] as an alternative to gross credit balances net of unbilled consumption.

3.18. We issued an RFI on CCBs to domestic suppliers alongside the policy consultation in June to provide better evidence to support a view. Our analysis here draws upon the responses to that RFI.

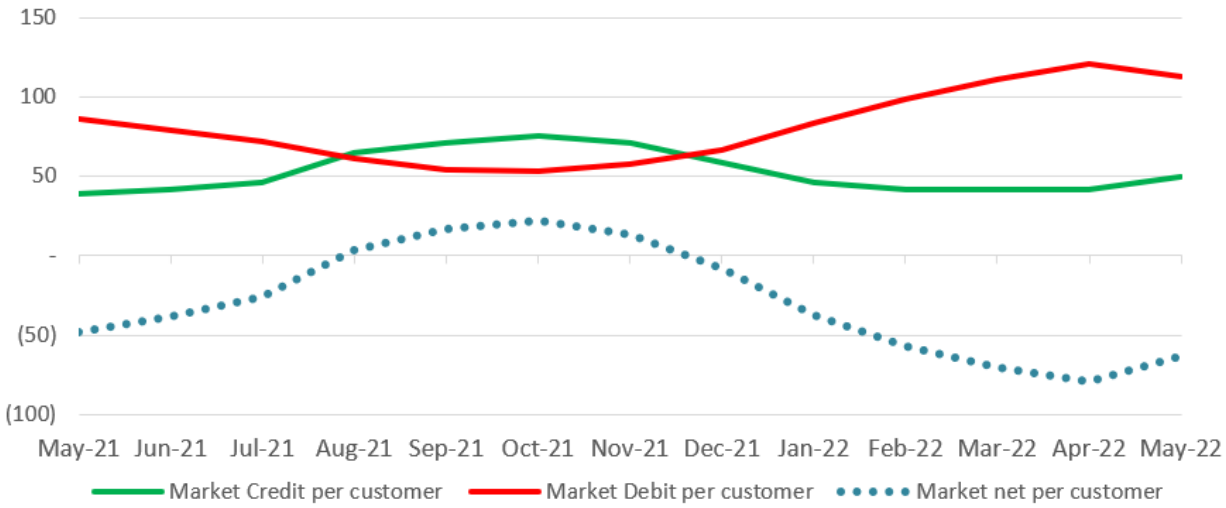
3.19. As expected, we see the profile of customer credit and debit balances vary seasonally with opposite trends (see Figure 2) – customers on fixed direct debits draw from their credit balances through the winter when their energy demand is

[10] Defined as: The total payments made by each customer less the total cost of energy billed to date by the supplier, and less the value of energy used by that customer since their last bill was issued. This includes both customers who are in credit and customers who are in debt.

highest, and they are likely to move into a debit position towards the end of winter. There is a general trend of the net position of credits less debits (i.e.- the dotted blue line in Figure 2) oscillating around near zero.

3.20. The clear indication is that across the market there are always some quantity of credit balances which in part reflects that some customers do not like to hold a debit position. Recent data shows that at a market level debit balances have outweighed credit balances over the year (see Figure 2). However, on an individual supplier basis we see some suppliers holding considerably more credit balances.

Figure 2: Market average customer credit and debit balances (£/customer)



Source: Ofgem analysis of July 2021 RFI

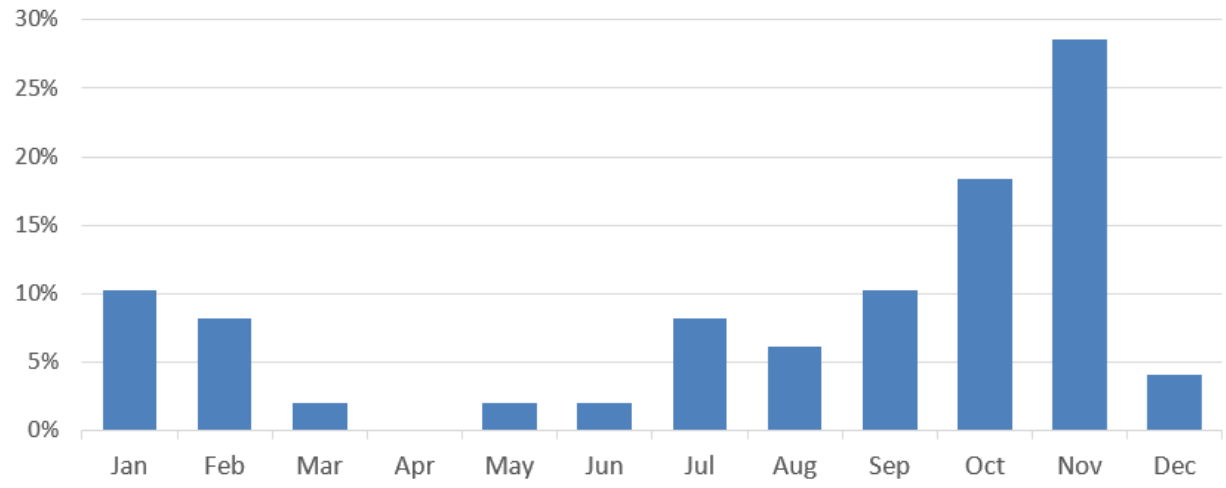
3.21. Our considerations of the merits for protecting net compared to gross balances are:

a) **Net balance protection offers only partial protection for approximately one-third of the year**. Based on the RFI data for May 2021 to May 2022, net balances were positive for four months (Aug-Nov) with maximum coverage equivalent to 30% of gross CCBs occurred in October.

b) **The presence of net balances during the year correlates with when suppliers have typically tended to fail**. Supplier failures between 2016-21 predominantly occurred during the first part of winter (see Figure 3), the same months for which net balances offers greatest protection. The timing of these failures is related to both when wholesale energy prices and consumption generally starts to rise and the final payment deadline for RO. Based on recent supplier data and monthly failure rates over the last five years, net protection

would have prevented 29% of cost mutualisation but only required 22% protection compared to gross credit balances if the cost of providing protection can change proportionately with the level of protection. This implies that protecting net credit balances has greater coverage of credit balances per £ of protection than protecting gross credit balances.

Figure 3: Frequency distribution of supplier failures by month (2016-2021)



Source: Ofgem analysis

c) However, **we do not think that ringfencing measures can be updated at the same rate as credit balances change**, and therefore there is a cost associated with that inflexibility (eg, if some suppliers choose to raise capital that is held for entire year), particularly for net balances which naturally change more quickly through the seasons. For suppliers unable to efficiently access letters of credit or other such facilities then protection may imply raising capital that would need to be held all year.

d) We think **net ringfencing is insufficient to fully address the market failure at stake.**

- **It is insufficient to fully resolve the moral hazard** incentive for suppliers. Where there could be the ambition to protect 100% of CCBs in the future, we believe that only gross ringfencing is able to provide the incentive to suppliers to internalise the full extent of costs imposed on consumers upon failure.

- Under the same level of protection required by the policy, net ringfencing would offer less protection in the event of failure. Gross ringfencing ensures that all credit balances are protected; whereas the amount protected under net ringfencing would be a function of the amount of direct debit balances held. Upon failure an uncertain amount of the remaining CCBs would have to be collected from the generality of customers, creating a cross-subsidy between customers.

3.22. Net balance protection may offer a more targeted approach towards disincentivising suppliers from holding excessive credit balances. Suppliers who hold unnecessarily high credit balances will require greater levels of protection. For those suppliers the net credit balances will be closer to gross credit balances than for suppliers who hold relatively equal levels of credit and debit balances. This would therefore impose lower capital requirements on those suppliers that have parity between debit balances and credit balances. The level of CCBs is influenced by the customer base and therefore having higher credit balances than debit balances does not necessarily infer unsustainable use of customer credit balances.

3.23. Overall, our view is that whilst net protections might offer efficiencies in some circumstances, it does not go far enough to eliminate the incentives of suppliers to use CCBs as risk-free capital to unsustainably grow. If protection of net balances is to be successful it must be combined with a capital adequacy requirement to ensure suppliers have adequate "skin in the game".

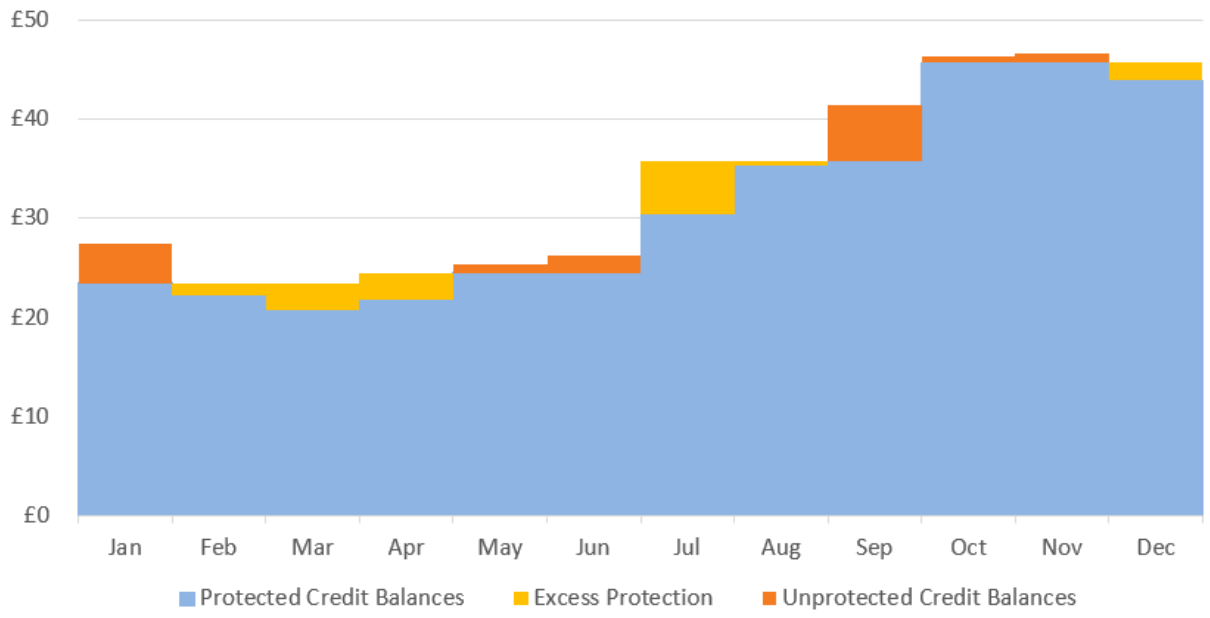
Nature of protections (backward- vs forward-facing): Customer Credit Balances

3.24. In the June Consultation, Ofgem raised a question of how to best set the level of CCB protection. We identified a preferred option of using supplier forecasts to make a forward-facing assessment of the requirement for protection over the following quarter. One stakeholder identified that backward facing RO protection calculations would be inconsistent with Ofgem's approach for CCBs and would leave 4 months of RO liability at risk of mutualisation.

3.25. Despite forecasts including an element of uncertainty it was a preferred option to a backward facing model based on actual data. A backward-facing model risked substantial under-protection of CCBs in summer and autumn months while CCBs increase and overprotection in winter and spring while they fall.

3.26. Given the preference for setting CCBs forward-facing, we have assumed that the amount of CCBs ringfencing would be based on the mean average of the monthly predictions within the quarter, rather than the peak of each quarter.

Figure 4: CCB ringfencing using forward-facing average (£/customer)



Source: Ofgem analysis of July 2021 RFI

Our revised position

3.27. In developing a shortlist of policy options, we have rejected several alternatives including an ATOL-style insurance scheme and extending ringfencing of RO receipts to non-domestic suppliers. We do not believe these policies would meet the policy objectives of reducing the cost of failure to customers at a fair cost.

3.28. We have shortlisted four options to consider within this impact assessment namely: 1) Ringfencing of RO receipts and CCBs; 2) Ringfencing of RO receipts only; 3) Capital adequacy 'pillar 1' capital requirement equivalent; and 4) A combination of options 2) and 3).

3.29. In designing the policy to ringfence CCBs, we have considered the level of CCBs suppliers will be required to protect (net or gross) as well as the methodology for setting the protection requirement (forward- or backward-facing). We have decided the best option is protection of gross CCBs on a forward-facing basis.

4. Justification of analysis used in the Impact Assessment

Section summary

This section describes the approach we have taken to assessing the potential impact of the proposals on consumers and market participants. It also explains our justification for key assumptions.

Approach to the previous Impact Assessment

4.1. Our previous impact assessment assumed that the underlying likelihood of supplier failure is reflected in the SoLR levy claims (pre-policy) and the cost of ringfencing (post-policy). Accordingly, we assumed that suppliers would be able to increase their tariffs to reflect additional costs and that there would be limited competitive distortions, particularly because the difference in the level of Fixed Term Contracts (FTC) tariffs compared to the price cap historically offered by some (generally smaller) suppliers was greater than the relatively higher costs that those suppliers would face.

4.2. Whilst the policy consultation included our consideration of a transition period, based on our analysis of the first round of domestic supplier stress-testing responses, the previous impact assessment focused on the 'equilibrium' consumer benefits. The assumptions underpinning this view were informed by the historical averages over the past five years.

4.3. Our previous impact assessment (Annex D) showed how using the analogy of credit rating methodologies, there were additional economic arguments to support the belief that resolving the moral hazard should incentivise appropriate risk management by suppliers.

Feedback received as part of the consultation

4.4. This section outlines the feedback received on the previous impact assessment and how we have adjusted our assumptions in this new assessment accordingly.

4.5. Two suppliers said that there were "numerous flaws" in the previous impact assessment highlighting overestimation of the forward-looking cost of mutualisation and under-estimation of the cost of our ringfencing proposals.

4.6. One supplier argued that the cost of supplier failure to consumers is likely to be much lower than in the historical reference period (2016-2021) as "unsustainable suppliers have already exited the market". They said that the impact of other policy changes, such as fit-and-proper checks for directors, market stabilisation charges, restrictions on suppliers' ability to offer certain tariffs, and other regulatory tests have not been considered. *We are conscious that the continued wholesale market volatility means that under-capitalised suppliers continue to face heightened risks of failure, and we are working with suppliers to manage specific risks. Fundamentally, however, we believe that the likelihood of supplier failure should be reflected in the cost of protections (post-policy) just as it is in SoLR levy costs (pre-policy). Hence, the consumer benefits are less sensitive to the assumed absolute likelihood of supplier failure. Those benefits partly arise from the degree to which the policy reduces the risk of supplier failure.*

4.7. A few responses argued that their cost of capital was significantly higher than the corporate bond yields used in the previous impact assessment, although those comments focused on the BBB-rated yields that had been assumed for the largest suppliers. The various figures used in the impact assessment for CCC, B, and BBB-rated bonds were long-term averages as a way of estimating the equilibrium position. Other responses were supportive of the methodology linking the cost of capital to supplier's credit rating. One of these stakeholders commissioned a consultant report which concluded that the credit rating bond yields used are reasonable, and the sensitivity analysis is applied consistently to the policies and the counterfactuals in the equilibrium view. *Our updated approach has been to consider near-term costs implied by a near-term view of bond yields and additional frictions in the capital market that make the cost of capital higher for energy suppliers.*

4.8. A few suppliers raised issues with how costs may be reflected in a market-wide price cap, given the different cost of capital. Our statutory consultation describes the proposed changes to the price cap and its Annex 8 model. We have explicitly considered the ability of different suppliers to operate within the cap, within the quantified impacts.

4.9. One supplier said that the previous impact assessment did not consider how CCBs may be much higher over the next few years compared to the reference period owing to the higher tariffs. They argued that Ofgem "materially underestimated" the cost of insuring credit balances. This, along with alternative assumptions, led the supplier to estimate that insurance costs could be over 30 times higher for 'small', independent suppliers than assumed in the previous impact assessment. *Our*

updated approach is to scale CCBs over the next few years according to the latest tariff forecasts. This increases the cost of insurance (post-policy) but also the net benefits of such protections. We think it therefore generally improves the case for ringfencing and capital adequacy proposals.

4.10. A couple of suppliers thought that the use of cost of debt assumed energy suppliers can raise debt to finance the insurance through bond issuance. *Our view is that the previous impact assessment did not make an explicit assumption on this point and used bond yields as a proxy through which we could price risk. We asked suppliers which mechanisms they would prefer to use as part of the consultation and have engaged extensively to understand the current lending environment. We have now moved to using a measure of equity risk as a proxy.*

4.11. One supplier disagreed with the assessment that small suppliers are able to increase competitive tariffs by more than larger suppliers. The supplier said that small suppliers may not therefore be able to meet the greater cost of ringfencing. *Within the current impact assessment, we have explicitly considered the allowance within the price cap and suppliers' ability to reflect their costs within default tariff and fixed term contract offers, drawing from the different level of offers that we have observed from different suppliers historically.*

4.12. A couple of suppliers stated that NERA used Special Administration Regime (SAR) cost estimations for Bulb in their analysis (the only example of a SAR) but did not clearly set out whether these costs are assumed to be mutualised. One of these suppliers argued that, as 90% of the market is served by larger suppliers, the assumption that the costs of SAR failure are similar to the costs of SoLR is incorrect. *Our updated approach separates larger suppliers, who are more likely to enter a SAR, from smaller suppliers, who would be more likely to enter the SoLR process. This has implications for the benefits from hedging and switching costs.*

4.13. One supplier commissioned a consultant to review the credit rating methodology used in the previous impact assessment. They said it was "unlikely that standalone suppliers would be able to reach a credit rating equivalent to the benchmark group of BBB". *Our updated approach calculates the post-policy supplier credit ratings based on the capital required against the criteria used to determine credit ratings. Consistent with our previous impact assessment, we find that there is significant*

consumer benefit in the smaller suppliers attaining B credit rating[11], which we believe is a plausible outcome for some independent suppliers (a view supported by evidence provided in response to the consultation). We do not assume that a BBB rating is a necessary target.

4.14. Some stakeholders commented that the previous impact assessment does not consider the impact of other regulatory changes, specifically highlighting the Financial Responsibility Principle (FRP). They argue that the FRP reduces the supplier failure rate which the impact assessment has not incorporated before assessing the impact on suppliers. However, one supplier commented that the FRP was not meant to significantly mitigate the risk and is not sufficient to prevent cost mutualisation. *Section 6 outlines how the Enhanced FRP is considered a vital enabler for the main policy options and should ensure that the consumer benefits described elsewhere in this paper are realised.*

4.15. A couple of suppliers believed the previous impact assessment was conservative, with one stating the previous estimates did not quantify the full benefits of the policy based on several factors. Firstly, they claim Ofgem's distributional weighting assumptions were too low and provided an understatement of benefits. Secondly, they explained how Ofgem did not include greater dynamic benefits of competition which would arise from prudential regulation. Finally, they stated Ofgem did not include the benefit customers would receive from having greater amounts of cash in their possession after a reduction in CCBs. *We continue to use the same approach to distributional analysis, which is consistent with the HM Treasury Green Book guidance, which is informed by data from our consumer surveys on the level of engagement across different consumer characteristics. This impact assessment includes a wider assessment of the effects on competition and speaks of a number of benefits of improving resilience in the sector to pricing, innovation and customer service. Finally, by continuing to use the opportunity cost of customers lending to suppliers through funds at risk of being mutualised, we implicitly include the benefit that customers receive from increasing the money they could alternatively invest.*

[11] B credit rating under Fitch or S&P classification is equivalent to B2 in Moody's.

Our final view

4.16. Whilst we received comments on the assumptions that we used previously, we did not receive comments that proposed a different fundamental approach, and we consider that the suggestions above can all be addressed within a similar framework. Whilst the exact benefits and costs are hard to measure precisely, partly because the costs and benefits are affected by external factors, our analysis is intended to provide confidence on the benefits being greater than the costs and whether the benefits of individual policies vary materially.

4.17. We continue to believe that the monetised consumer net benefits of the proposals are primarily derived from the improved supplier financial resilience such that the cost of 'insurance' (either through ringfencing protections and/or a capital requirement) is lower than the mutualised 'pay-outs' by consumers that would otherwise be expected. We capture these pay-outs using the opportunity cost suppliers face by covering at risk capital for suppliers. Because suppliers are essentially lending capital that could be lost, they could in theory invest in assets with a return. Other consumer benefits relate to the lower social waste of inefficient switching and lower administration costs.

4.18. The section continues below by describing our assumptions. We are conscious that many of the underlying assumptions are strongly inter-related – for example, the cost of capital for a supplier partly reflects the likelihood of it failing – and we have been careful not to introduce inconsistencies. Whereas in the previous impact assessment, we published an equilibrium view which took a longer-term view of the costs and benefits of the policy options. We have now explicitly considered the costs and benefits over the next six years.

4.19. The continued wholesale market volatility means suppliers, particularly those that have not re-capitalised, continue to face heightened financial pressures. We do not think that the risk of exit is negligible. This view is supported by our latest round of stress-testing and on-going Financial Responsibility Principle monthly RFI. Therefore, we still believe that intervention is required.

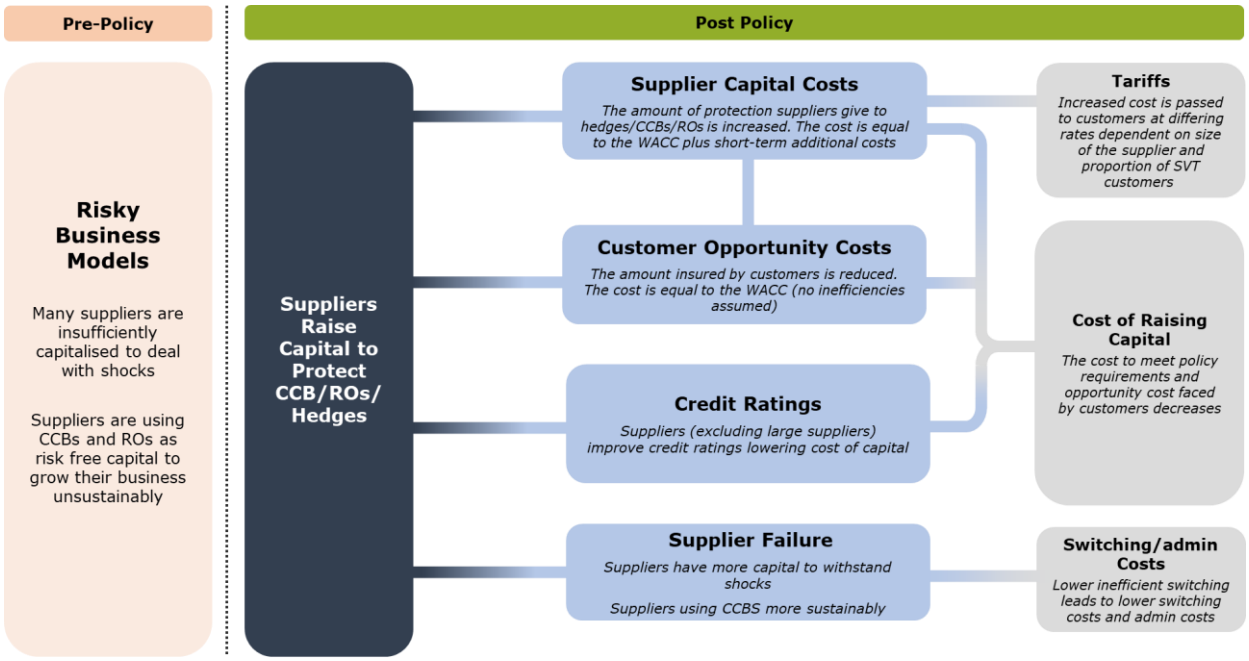
Assumptions and Impact Assessment design

General approach

4.20. We are adopting a similar approach to the previous impact assessment, albeit with important refinements to reflect stakeholder feedback on near-term effects, especially on cost of capital, and being more explicit about the differences between ringfencing and capital adequacy.

4.21. Building on the analysis in the previous impact assessment[12] (specifically Annex D) we have utilised a credit rating framework, based on that used by credit rating agencies, to consider how the capital requirements will impact their default rate and implied cost of capital.[13] Figure 5 summarises the logic of how the policies create benefit to customers within our estimates.

Figure 5: Flowchart of policy benefit mechanisms



4.22. As set out in Section 1, suppliers are insufficiently capitalised to deal with shocks and can use CCBs and ROs to grow their business unsustainably which comes at a

[12] Strengthening Financial Resilience | Ofgem
[13] Credit rating agencies undertake assessments of the creditworthiness of businesses and the long-run associated risks of default. These assessments include several factors including market diversification, financial policy, and debt amongst others. These assessments are used by lenders to offer an appropriate lending rate.

cost to customers when suppliers fail. We are therefore consulting on policies to require suppliers raise capital to reduce the cost of failure. By raising capital there are four main effects:

- **Supplier capital costs:** Suppliers must raise capital at a cost of the WACC plus any additional short-term costs suppliers face from raising the necessary capital.
- **Customer opportunity costs:** Any capital that is at risk of being mutualised if a supplier fails is effectively insured by consumers because they will bear the cost in the long-term. We use an opportunity cost as we assume suppliers would be able to use this money to invest in alternative assets with the same risk and return to the supplier to which they are lending. The opportunity cost therefore acts as a proxy for the cost of mutualisation of CCBs, ROs, and hedges when customers fail. We assume this opportunity cost is equal to the WACC.
- **Credit rating:** By holding more capital suppliers credit ratings will improve.
- **Risk of failure:** Suppliers' risk of failure will reduce as their "skin in the game" increases and they are able to ride out shocks more effectively.

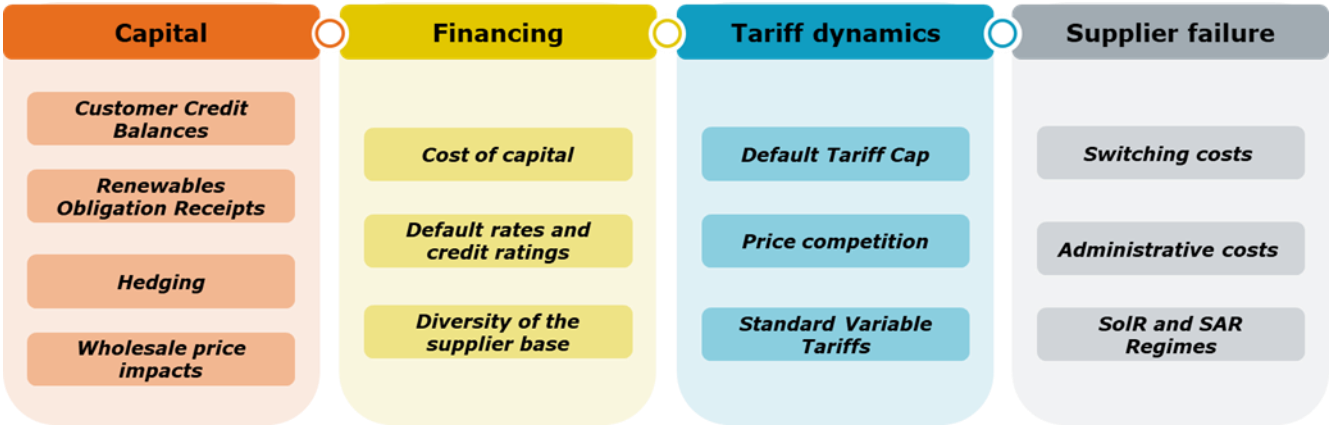
4.23. These four effects combine to create the main costs and benefits of this impact assessment:

- **Changes to tariffs:** The increased cost to suppliers of raising capital will be at least partially passed onto customers by increasing tariffs. The increase in tariffs will depend on the size of the supplier and the percentage of their customer base on standard variable tariffs.
- **Cost of raising capital:** As the risk transfers from customer to supplier the cost of risk falls more heavily on the supplier. There are two contrasting effects; One, in the short-term suppliers face an additional cost to the opportunity cost faced by suppliers; Two, because suppliers are deemed more investable and the cost to suppliers and customers (the proxy for mutualised costs) reduces.
- **Switching and admin costs:** The lower failure rate means less inefficient switching and administrative costs happen when a supplier fails.

4.24. We have made various assumptions to quantify the flow of costs and benefits set out above. These assumptions are often simplifications of more complicated interactions.

Figure 6 gives an overview of the assumptions which are described in the following subsections.

Figure 6: Assumptions used in this Impact Assessment



Categorising suppliers

4.25. For the purposes of the impact assessment, we have had to generally consider suppliers within strategic segments: "large legacy", "challenger", and "small".

4.26. This impact assessment makes various assumptions about the capital each category of supplier holds pre-policy, the cost of capital and implication of failure (ie, whether SAR or SoLR process).

4.27. "Large legacy" suppliers are assumed to have a market share of over 5% of total domestic customers and, in part owing to their legacy position, can accumulate capital at a lower cost. "challenger" suppliers are assumed to have over 1 million customers, but do not yet have the same access to capital markets as large legacy suppliers. Both large legacy and challenger suppliers would likely enter a SAR rather than a SoLR process in the event of failure. The remaining suppliers are categorised as "small" suppliers, who would be more likely to enter the SoLR process. Like challenger suppliers, they are assumed to have limited access to capital markets.

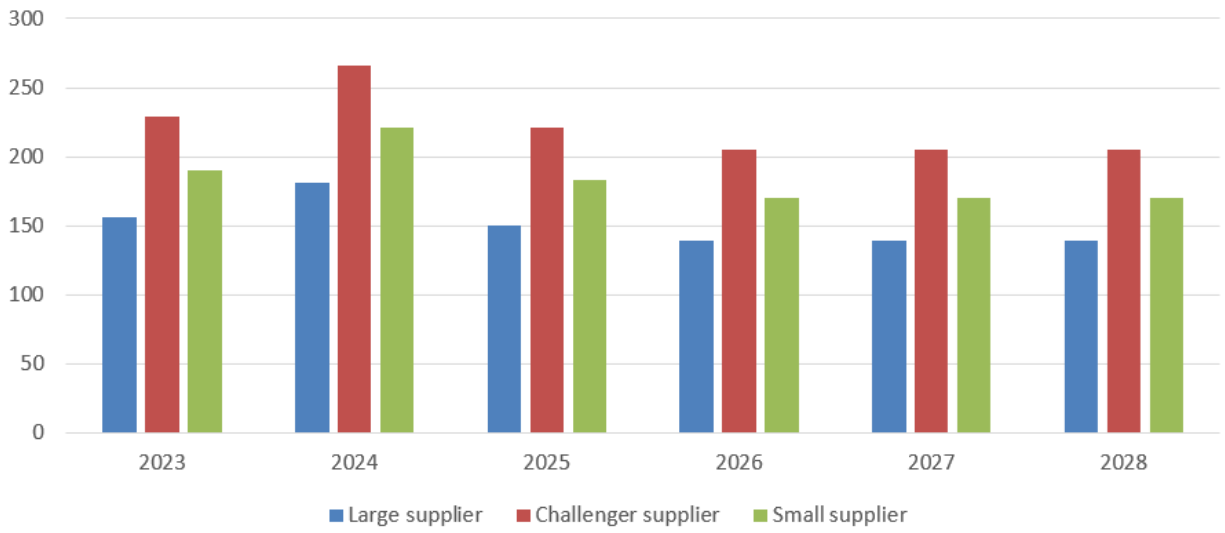
Capital

Customer Credit Balances (CCBs)

4.28. As in the previous impact assessment, we estimate the cost of insuring CCBs using a forecast of CCBs over the next 6 years, based on the historical patterns. We use the annual peak of CCBs by averaging CCBs from October to December, based on data from our RFIs to suppliers for 2020 and 2021. By using the peak, we are including a conservate estimate that suppliers will need to cover their peak CCBs all year round.

We expect suppliers to, at least partially, be able to react to the seasonal changes in CCBs and reduce the amount of ringfenced capital they hold. We scale historical levels by forecast wholesale market prices to estimate future CCB levels. The resulting forecasts can be seen in Figure 7.

Figure 7: Customer credit balances assumptions by supplier size (2023-2028, £/DD customer)



Source: Ofgem analysis

4.29. Under ringfencing of CCBs, we consider the opportunity cost to customers of covering unprotected CCBs (as a proxy for the cost of mutualisation) as well as the cost of raising the necessary capital to protect CCBs. More detail is provided in Section 5.

Renewable Obligations (RO) receipts

4.30. Under current arrangements, suppliers accrue RO obligations over a 12-month period (1 April – 31 March) and have 5 months to settle their obligation either by paying into the buy-out fund by 31 August, presenting ROCs by 1 September or a combination of both. Suppliers are allowed a 2-month late payment period between 1 September and 31 October in which daily interest rates are charged. This adds up to a maximum of 19 months' worth of obligation that an insolvent supplier could default on (or a supplier who, for example due to cashflow difficulties, can default on due to a failure to pay). We therefore calculate the future obligation rate at risk of mutualisation across a maximum RO term of 19 months.

4.31. The RO buy-out price that suppliers pay for each ROC they do not present towards compliance with their annual obligation, increases by the average monthly percentage change in the Retail Prices Index (RPI) during the previous calendar year.[14] The buy-out price for 2021/22 was £50.80.

4.32. The RO obligation rate is set annually by BEIS based on the number of ROCs produced by certified generators and the volume of eligible electricity sales. Since the RO scheme closed to new generators, it has averaged 0.4648 ROCs/MWh between 2017/18 and 2021/22. Hence, for typical consumptions of 3.1MWh and 4.2MWh for single-rate and multi-register electricity consumers (80%, 20% of the market respectively), we assume an average RO obligation of £129 per customer.

Hedging

4.33. Suppliers generally use contracts for physical delivery and/or financial derivatives ('hedges') to reduce their exposure to wholesale price risk. As in the previous impact assessment, if a supplier becomes insolvent then the supplier could enter a SoLR or a SAR regime and any 'in-the-money' hedges may become liquidated by the appointed insolvency practitioner. A more detailed description of insolvent supplier assumptions is given in paragraph 4.92.

4.34. We quantified the benefits of capital adequacy by adding a cost to protect secured[15] hedges when the level of hedges retained in the event of failure is below the capital requirements. This implies that the more hedged suppliers are, the lower both the risk and cost of failure.

4.35. The method is justified by the fact that a SoLR must incur the wholesale allowance and other related costs with purchasing energy for the inherited customers. The cost to re-hedge was higher than the amount that could be recovered through the price cap, meaning that there were large claims on the SoLR levy. The wholesale costs represent over 93% of the approved claim of the 2021/22 winter failures. As described in the accompanying statutory consultation, Ofgem has approved wholesale market cost claims of £1.71bn and is minded-to approve further £0.13bn, subject to consultation and final decision. However, we assume that the cost to re-

[14] Renewables Obligation (RO) Buy-out Price, Mutualisation Threshold and Mutualisation Ceilings for 2021-22 | Ofgem.
[15] Secured hedges are those that would be protected in a SAR. See paragraph 4.92 for more detail

hedge is equivalent to the cost of the original hedge. Therefore, we don't need to reflect the value of increased retained hedges or decreased unprotected hedges.

4.36. We assume that the value of secured hedges of large suppliers exceeds the capital requirements under the policy. Therefore, they do not incur a cost because of capital adequacy requirements. We assume that the value of secured hedges of challenger suppliers is below the capital adequacy requirements. Therefore, the increased cost to the challenger supplier is the cost of the difference between the capital requirement and the value of retained hedges. Regardless of the hedging position of small suppliers, they will incur a cost equal to the totality of capital adequacy requirements. However, we assume that this does not affect their incentive to lower their default rate as they still need to demonstrate sensible hedging strategies to reduce their costs and remain competitive.

4.37. The policy should effectively improve the hedging position of all suppliers which in turn decreases their likelihood of failure. The amount to re-hedge in the event of failure is assumed lower for larger and challenger suppliers as they have protected hedges that would be transferred through the SAR process.

4.38. If a supplier fails and enters a SoLR process the SoLR supplier inherits the customers of the insolvent supplier but not the hedges used to secure their future energy consumption (i.e., it will need to re-hedge). We assume that the SoLR must re-hedge at the WACC (in post-policy this does not include the additional short-term cost of capital) because this is at least or less than the amount they would have re-hedged pre-policy, where the additional short-term cost of capital.

4.39. We assume that in the case of a market shock, small suppliers' debt will be lower than the amount of the protected hedges than in a pre-policy world. Therefore, the benefits of increased protected hedges of failed small suppliers fall on consumers and are accounted despite the difference in transferred assets between SAR and SoLR processes.

4.40. When suppliers have to re-hedge in a rising price environment this comes at an even greater cost to customers. The improved hedging positions should in turn improve the WACC and therefore lead to lower total cost of mutualising CCB and/or RO receipts in the event of failure.

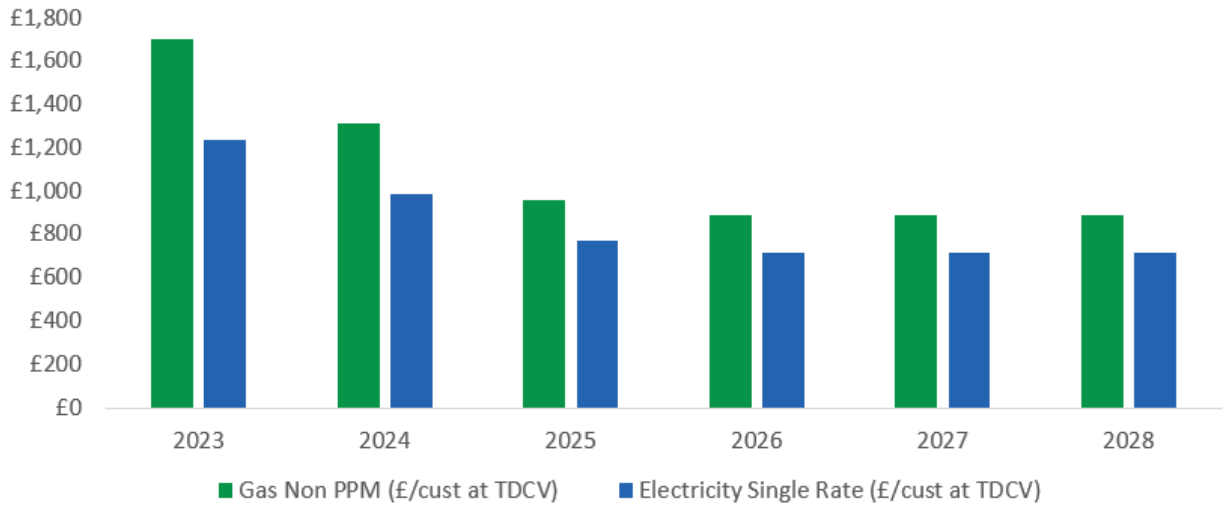
Wholesale price impacts

4.41. Wholesale prices directly affect both the default tariff cap as well as the prices that suppliers offer as Standard Variable Tariffs (SVTs) and Fixed Term Contracts (FTCs).

In line with our strengthened fixed direct debit rules,[16] we expect suppliers to update customers' direct debit (DD) levels according to the "best and most current information available (or which reasonably ought to be available)". In practice, this means that as SVT and FTC pricing evolves, it will be reflected in DD levels.

4.42. We use recent wholesale market forward curves[17] to estimate how the Default Tariff Cap (DTC), and thus tariffs CCBs, might evolve over the next few years (see Figure 8). We apply the tariff forecasts to scale up/down the historical CCBs levels, based on the two RFIs that we issued to suppliers. We assume that the proportionate differences in across supplier segments is fixed over time in pre-policy.

Figure 8: Assumed annual average wholesale allowances for a typical customer (£/year)



Source: Ofgem analysis based on wholesale prices as of 10th October 2022

Financing

Cost of capital

4.43. The options under consideration will necessitate suppliers to hold more capital. Where funds are ringfenced, suppliers will need to do so via an appropriate

[16] Decision on statutory consultation on strengthening fixed direct debit rules | Ofgem
[17] Whilst we recognise that contracts for distant delivery are not frequently traded, our view is that they nevertheless reflect the best, readily available information.

mechanism as well as potentially access replacement capital to continue effective operations.

4.44. For the purposes of this impact assessment, we have sought to assess the cost of capital specific to the options under consideration for different suppliers by analysing responses to our policy consultation and conducting bilateral discussions with suppliers and potential lenders. We spoke to lenders that have existing relationships with suppliers and approached other potential commercial lenders to better understand the range of market options available. We have also undertaken independent analysis of data provided by suppliers through RFIs and statutory accounts.

4.45. Of the responses to our policy consultation, 13 suppliers said that ringfencing would add to their costs, of which 11 said this would significantly increase their financial strain. Eight suppliers of a range of sizes from large to small, volunteered either a cost of capital or cost to customers in their responses.

4.46. One of the benefits of improved supplier financial resilience is that suppliers' individual cost of capital should reduce (all other things being equal) due to a lower likelihood of failure of the firms. One supplier told us that they thought it would take "several years of sustained profitability" to achieve investment grade rating. Our discussions with commercial lenders confirmed that they would consider the historical financial performance from the previous few years when determining the availability/pricing of products to potential customers. We have considered the impact of this in a sensitivity analysis which does not change the choice of the preferred policy option.

4.47. The WACC is used in both the pre-policy and post-policy scenarios to calculate the cost of the policy. This WACC is applied both to the capital that is protected by the policy option (the cost to suppliers of raising the required capital) and to the unprotected capital (the capital that is at risk of mutualisation, which is essentially insured by customers).

4.48. When estimating the benefits of the policy, we consider the costs that consumers implicitly pay to insure suppliers against mutualised costs in the event of a default. In practice, when a mutualisation happens, consumers will pick up the entire amount mutualised. Whether or not a mutualisation happens, however, there is an opportunity cost associated with making this money available to be called upon at some probability. This is conceptually no different to how a financial institution

would treat the same situation, in which case it would require a certain interest rate commensurate with the risk of default on that loan.

4.49. A liquid market in insurance on similar terms for the default risks of energy suppliers is not available. Therefore, there are no perfect benchmarks for the price of the insurance consumers are required to provide to energy suppliers. On one hand, like debt, consumers receive no upside on the finance made available. On the other hand, like equity, any actual debt holders will be paid out first, and even equity holders in the case of a SoLR, leaving consumers to bear the full cost of default with little recovery.

4.50. A WACC would assume that the risks taken by consumers in case of such a default are the average risks taken by debt and equity in financing a business of this sort. An alternative would be to use a cost of debt, which would suggest that customers/society are taking on more debt-like risks than equity-like risks. By using the WACC we assume that the risks taken by consumers are the average risks taken by debt and equity in financing a business of the financial profile associated with their credit rating.

4.51. We believe that the WACC is more representative of the opportunity cost customers are subjected to since in the event of a supplier's failure the total costs are not recovered from the failing supplier but instead from the generality of consumers, and the amount of this exposure is not fixed up front. However, this approach should be seen as being cautious on the size of benefits of the policy. Since we assume that the reduction in the opportunity cost of capital post-policy measured as the WACC is likely to be lower than the reduction in the default rates, for reasons explained in paragraph 4.53.

4.52. The impact of default risk on the cost of debt may be readily estimated with reference to the bond yields observed on debt issued by companies with similar risk profiles. The impact of default risk on the cost of equity-like financial products is more challenging to estimate; default risk does not explicitly feature within the Capital Asset Pricing Model typically used to estimate required equity returns, albeit adjustments for the asymmetric risk of default are possible.

Default rates and credit ratings

4.53. To estimate the impact of a reduction in default risk on financing costs for energy suppliers, we take a weighted average of estimated impacts of the change in default risk on debt and equity products. We assume the impact on the cost of debt is given

by the change in interest rates corresponding to the change in the credit rating. We conservatively assume in the case of equity that there is no change in the cost of equity for different default probabilities, which likely understates the impact of changes in default risk. The weighting between debt and equity is somewhat subjective. We assume that the impact of changes in default risk on the cost to consumers of insuring mutualised risks is 25 percent like debt and 75 percent like equity. Quantitatively, this assumption is equivalent to assuming that the supplier finances its activities at a Weighted Average Cost of Capital with 25 percent gearing, and where only the cost of the debt component varies with the default rate. We recognise that the actual gearing level would be likely to vary with credit rating, but we use this assumption to estimate the increase in total cost of capital associated with an increase in default risk.

4.54. Our weighting of the impact of debt costs on financing costs reflects that:

- suppliers' cost of equity would in practice be responsive to default risk rather than the zero impact we assume for equity, and therefore it is appropriate to assume an effect of reducing default risk even for equity financed companies; and
- suppliers are primarily equity financed, which suggests that relying on debt market alone could overstate the impact of default risk on financing costs.

4.55. In using the WACC as the cost of capital we are progressively replacing assets that are very low risk at the margin (at least in the move from BB to BBB), which are only at risk in case of default, with capital costs based on a measure of *average* required returns for all the capital in the business, including the risk-compensation required by equity holders for very different risk profiles. We are therefore assuming suppliers are forced to raise capital based primarily on equity returns even for capital that is not frequently at risk. This results in the following assumptions for modelling the WACC.

Table 2: Financial parameter assumptions

Gearing	25%	Ofgem assumption
Total market return	6.50%	Consistent with mid-point in EBIT consultation
Asset beta	0.75	Consistent with mid-point in EBIT consultation

Table 3: Risk-free rate forward curve and bond yields

4.56. Table 4 below shows the costs of acquiring capital by credit rating. Suppliers who have a better credit rating will be able to reach capital requirements at a lower cost.

Table 4: Typical default rates by credit rating and implied WACC

Credit rating	Default rate	WACC					
		2023	2024	2025	2026	2027	2028
BBB	0.06%	8.42%	8.48%	8.57%	8.65%	8.72%	8.77%
BB	0.36%	9.00%	9.07%	9.16%	9.24%	9.31%	9.36%
B	2.20%	9.68%	9.74%	9.83%	9.91%	9.98%	10.03%
CCC	11.00%	11.19%	11.25%	11.34%	11.42%	11.49%	11.54%

Source: Ofgem calculations

4.57. Responses from the consultation and discussions with potential lenders/investors have highlighted short-term costs in addition to the higher cost of capital small suppliers normally face compared to large suppliers. These costs would make it more expensive for challenger suppliers and small suppliers to accumulate capital at the magnitudes of the policy requirements.

4.58. Given some of the costs that smaller suppliers have told us they face, we estimate that there is 500 basis points (bps) of additional cost of capitalisation above the baseline WACC assumptions in "challenger" and "small" suppliers' ability to raise the required capital. We assume that the performance of the sector, as it emerges from the gas crisis and along with implementation of the government's new retail strategy, will mean the additional cost will reduce. The additional cost of capital in Table 5 is added to any extra required as part of the policy above that suppliers are already assumed to hold.

Table 5: Additional short-term cost assumption

	2023	2024	2025	2026	2027	2028
Short term additional cost of capital	+500bps	+400bps	+300bps	+200bps	+100bps	+0bps

4.59. Combining the underlying base WACC estimates with the additional near-term cost assumption gives the WACC results shown in table 6 below. These assumptions align closest with the costs of capital many suppliers shared in their consultation responses.

Table 6: Typical default rates by credit rating and implied WACC including near-term Additional Costs

Credit rating	Default rate	WACC					
		2023	2024	2025	2026	2027	2028
BBB	0.06%	13.42%	12.48%	11.57%	10.65%	9.72%	8.77%
BB	0.36%	14.00%	13.07%	12.16%	11.24%	10.31%	9.36%
B	2.20%	14.68%	13.74%	12.83%	11.91%	10.98%	10.03%
CCC	11.00%	16.19%	15.25%	14.34%	13.42%	12.49%	11.54%

Source: Ofgem calculations

Number of suppliers by credit rating

4.60. As in the previous consultation, we assume large suppliers have a pre-policy credit rating of BBB which will not be improved by the policy as they are sufficiently capitalised. BBB was chosen based on published credit ratings for several large suppliers.

Table 7: Published credit ratings of large suppliers

Supplier	Moody's	S&P	Date
Centrica (CAN-BG)	Baa2	BBB	Both: Dec 2021
EDF (EDF-FR)	Baa1	BBB	Both: Feb 2022
Iberdrola SA (IBE-ES)	Baa1	BBB+	M: Apr 2016, S&P: Mar 2018
E.on SE (EOAN-DE)	Baa2	BBB	M: Mar 2020, S&P: Mar 2017
SSE plc (SSE-GB)	Baa1	BBB+	M: Nov 2021, S&P: Dec 2018

Source: Company websites

4.61. For challenger suppliers and small suppliers, each policy option will improve credit risk depending on how much capital the supplier holds. We assume the following criteria would be improved by suppliers holding additional capital:

- Hedging,
- Financial Policy,
- Interest Coverage,
- CFO/debt, and
- RCF/Debt.

4.62. Our modelling assumption is to weight hedging and financial policy with other qualitative and quantitative factors as shown in Table 8. The factors and weightings are taken from Moody's Rating Methodology 2017.[18]

Table 8: Moody's credit rating methodology criteria

Criteria	Weight
Scale	10%
Market Diversification	5%
Hedging	10%
Market Framework	15%
Capital Requirements	5%
Financial Policy	15%
Interest Coverage	10%
CFO/Debt	20%
RCF/Debt	10%

4.63. We have used this approach and made assumptions to quantify the potential benefits over time. The exact parameterisation is subject to uncertainty, but we believe it demonstrates a clear chain of causality. The mechanism articulates that when suppliers increase their financial resilience, their risk of defaulting on their obligations also falls, and so their cost of capital falls.

4.64. As a result of the reduced cost of capital, the policy delivers benefits to customers when the incremental cost of capital is lower than the benefit from improving the suppliers' credit ratings. Because the added improvement in WACC slows as suppliers move to a higher credit rating there will be a point of diminishing returns where raising capital becomes more expensive than improvement in the WACC.

Diversity of the supplier base

4.65. Suppliers told us that due to their different supplier business models, they face different cost of capital. For the purposes of this impact assessment, we estimate the cost of capital for each of the supplier segments using the methodology

[18] Rating Methodology for Unregulated Utilities and Unregulated Power Companies | Moody's

described in the paragraphs above. This is distinct from the use of a single cost of capital as a return on the capital that we require in our final policy decision as part of our EBIT consultation, which is assumed to be that of a notional efficient supplier.

4.66. In the next subsection, we describe how we assume those different costs are passed through into tariffs. Our findings of the impact on competition are described in Section 5.

Tariff dynamics

4.67. To assess the impact of these policies on consumers, we have made assumptions about how different suppliers will choose to reflect their changing costs into their offered tariffs, both SVTs and FTCs. This subsection describes those assumptions.

Default Tariff Cap (DTC)

4.68. Without prejudice to any decision that GEMA will have to take on how it adjusts future price caps, we have considered how each option potentially imposes additional costs on our notional efficient supplier and therefore whether there would be a case for adding a price cap allowance to allow suppliers to recover the cost of the policy.

4.69. The Competition Market Authority's approach (CMA) in their Energy Market Investigation did not assume that suppliers would be precluded from using CCBs and RO receipts as working capital. Our on-going price cap EBIT consultation also assumed that suppliers could use CCBs and RO receipts as working capital when setting the capital employed. Conservatively, we therefore assume that **options including ringfencing (options 1, 2, and 4) would be accompanied with an additional price cap cost allowance** to account for additional costs arising from ringfencing assets at the existing notional supplier WACC set by the CMA (10%).

4.70. Any capital requirement for capital adequacy (included in options 3 and 4) will not involve an additional allowance in the price cap methodology on the basis that the methodology already provides for efficient suppliers with sufficient returns to hold a specific level of working capital.

4.71. We observed that, suppliers that have historically chosen to not hold the levels of capital implied by the price cap might incur a higher total cost with the capital adequacy option than that they might incur with CCB ringfencing. On the other hand, suppliers that are already sufficiently capitalised will not incur a cost under capital adequacy. Therefore, capital adequacy might lead to some suppliers that

could either not be affected by the policy or even extract a rent if they outperform the cost of capital assumed in the DTC, whilst others will incur a cost.

4.72. However, whilst CCB ringfencing does impose a cost on all suppliers proportionally to how much CCB they hold, the introduction of a specific allowance, provides the ability to large suppliers to extract an even higher rent as they both could outperform the cost of capital assumed in the DTC and match the price cap allowance while others will incur a cost.

4.73. This difference in policy design does improve the case for options that include capital adequacy. However, we run a sensitivity analysis including an additional allowance in Options 3 and 4 that is equivalent to recovering the additional costs compared to the baseline price cap methodology.

4.74. Overall, we expect large suppliers to be able to exert a competitive pressure over challenger and small suppliers such that they are not able to unsustainably undercut. Despite unchanged tariff structures (i.e., challenger and small suppliers offer cheapest deal), we acknowledge a change in market dynamics as this is effectively a barrier to pricing below costs.

Price competition

4.75. In the pre-policy world, customers provide suppliers with a free source of capital through credit balances and the mutualisation of unmet RO costs. In addition, consumers have the option to switch back to the price cap with another supplier, should their supplier fail. These enable speculative suppliers to take excessive risk without committing the capital to the business necessary to cover the exposures that risk creates. We assume that the differences between the average tariff offers of each supplier segment persist according to the recent averages.

Table 9: Average Typical Consumption Tariff Differentials by Supplier Segment (2019-2021, £/customer)

Supplier Segment	Different vs. Large Legacy Tariff	
	SVT	FTC
Large legacy	-	-
Challenger	(39)	(33)
Small	(52)	(33)
Failed	(103)	(53)

Source: Ofgem analysis of supplier tariff data

4.76. In estimating the costs of the post-policy world, we consider how suppliers could increase tariffs to reflect the explicit costs of raising capital. However, in principle, there is an additional tariff impact that comes from the moral hazard problem itself. One of the manifestations of the excessive risk taken by suppliers could be the availability of cheap, unhedged tariffs when market conditions are favourable. Suppliers may take risks in other ways that may not artificially reduce the level of their tariffs, for instance by not adequately hedging their wholesale costs. Insofar as the proposed interventions force suppliers to act more prudently and offer tariffs that reflect their costs, their customers will lose the benefit of artificially low tariffs. Hence, post-policy, we assume that the increased costs will require suppliers to increase tariffs to price at a more sustainable level.

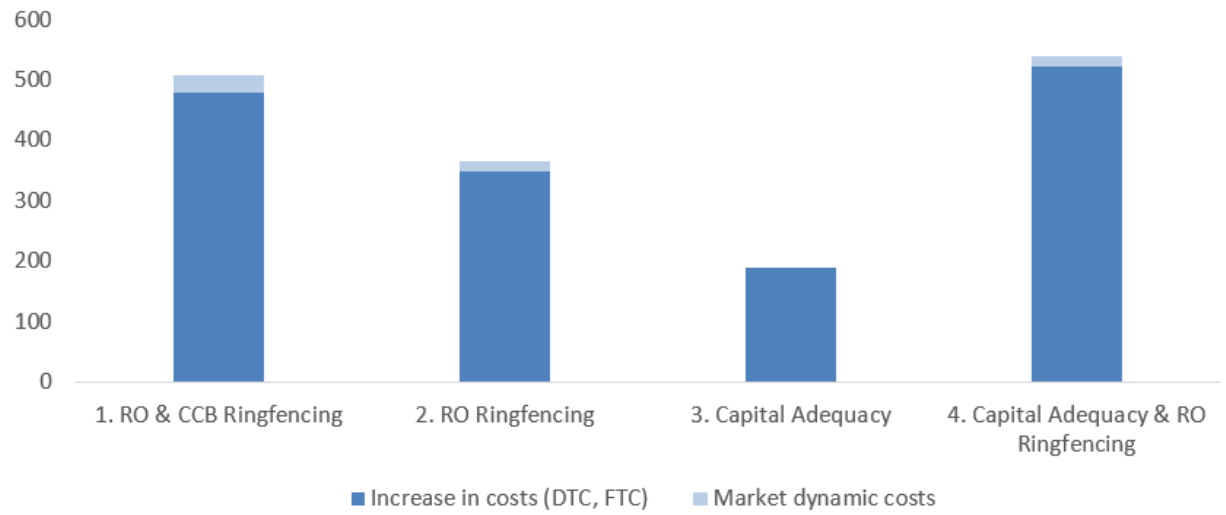
4.77. We assume that the market for engaged customers remains competitive and that apart from the additional costs associated with proposals, the historical differences between supplier segments in their SVT and FTC offered prices do not change.

4.78. We assume that suppliers seek to fully pass on the additional cost of the proposals through their tariffs, subject to the DTC and competitive constraints. Where the average historical difference in FTC prices between large legacy suppliers and challenger/small suppliers is greater than the difference in the cost of raising the additional capital, the implication is that challenger/small suppliers should still be able to offer price competitive SVTs/FTCs although the market spread is reduced. On the other hand, they should not be able to offer unsustainably low tariffs that make them much more likely to fail and trigger cost mutualisation.

4.79. In summary, we set out below the drivers that lead to an increase in tariffs:

- Removal of the effective cross-subsidisation of failed suppliers' tariffs means that the very cheapest historical tariffs that would have been offered by similar suppliers will be unavailable in the future.
- Increase in DTC for Options 1, 2 and 4 means all SVT customers are expected to pay an additional amount at least equal to the benchmark allowance.
- Increase in FTC offers of the challenger/small suppliers reflecting their additional costs. Large legacy suppliers are expected to seek to close the historical pricing difference between them and other suppliers by increasing their tariffs by their increased costs.

Figure 9: Additional consumer costs through tariff Increase induced by Policy (2028, £m)



4.80. The additional consumer costs through tariff increases are given in Figure 9. With ringfencing, particularly of RO receipts and CCBs (option 1), the relatively smaller indirect benefits partially offset the pass-through of additional costs into tariffs. For all the options considered, the reduction of mutualised costs more than offsets the increase of costs shown above, which makes all the considered options better than the counterfactual.

4.81. Whilst we observe a slight decrease in the price differential between the DTC offered by large suppliers and the cheapest FTC, we do not expect this to cause a significant impact on the switching rate.

Market dynamics

Standard Variable Tariffs (SVTs)

4.82. There interaction between the price cap and wholesale prices has meant that several million more households are currently SVT customers. We assume that, given lower wholesale market volatility, engaged consumers will switch to an FTC once they become available. Given the uncertainty about whether there has been a structural change in consumer behaviour, we assume that the proportion of consumers on SVTs will return to historic levels (based on the average between April 2019 and October 2021) over the evaluation period. Some market measures, like the Market

Stabilisation Charge (MSC), could lessen the incentive for consumers to switch tariffs in the short run.

Switching costs

4.83. In the absence of the policy, suppliers could take advantage of risky business models to undercut and provide unsustainable and distortedly low tariffs to customers. Engaged customers could benefit by switching to these suppliers to take advantage of lower tariffs. However, if the supplier were to fail, costs would be mutualised to all consumers through the SoLR process to cover the unprotected CCBs, ROs and unprotected hedges. In a market where suppliers must internalise the risk of failure, suppliers would incur increased costs, which will reduce the risk of failure. To remain competitive, they will also have an incentive to reduce the additional costs imposed by the policy by reducing the risk they take, which will in turn further reduce the risk and cost of failure. Therefore, suppliers would have a smaller chance of failure leading to lower costs of failure being passed on to consumers.

4.84. In reducing the likelihood of supplier failure, all consumers will benefit from a reduction in switching costs. The are three main drivers behind lower switching costs:

- A decrease in consumer costs from less 'forced' switches after a SoLR. The costs are measured by the price differential between SVT and FTC.
- A decrease in supplier costs due to a reduction in the number of customers being transferred after a SoLR.
- A decrease in price differentials from suppliers' inability to provide unsustainably low tariffs to customers, both prevents inefficient levels of customer switching and reduces the savings in switching.

4.85. The customers of failed suppliers will incur a cost when transferring from the lower FTC tariff to the higher SVT of the SoLR. The policies will bring a two-fold effect in reducing customer switching costs. Firstly, the policy will reduce supplier failure which leads to less customer switching. Secondly, the lower supplier failure will reduce the SVT – FTC differentials which reduces the cost of being transferred to an SVT for the engaged customers of failed suppliers.

4.86. In the event of a SoLR, there are one-off onboarding costs. We assume costs are £31 per customer, based on a previous RFI estimates. These costs are fully passed onto customers. The policies would reduce the number of SoLRs, leading to less customer switching and a reduction in costs for suppliers.

4.87. In the pre-policy world, suppliers pursuing risky strategies can offer unsustainable tariffs whilst being insufficiently capitalised or using CCBs/ROs receipts as free working capital. These suppliers can undercut established suppliers and get remunerated by taking risky strategies, leading to excessive price competition. However, in a post-policy world suppliers will internalise the impact of changes in default risks in their prices. Therefore, the riskier the supplier in the pre-policy world, the higher their costs and prices will be in the post policy world. The proposed policies should decrease switching rates and lower the gain of these lower prices to reflect sustainable price competition.

4.88. We assume a market wide switching rate of 18.7%, based on the historical switching rate of non-failed suppliers (2017-2021) as used in the previous impact assessment. It is then adjusted post-policy as a function of post-policy SVT - FTC price differentials. In the June impact assessment, we assumed that the post-policy world would be a more sustainable price competition market environment where the switching rate will be to that of historical non-failed suppliers. In the revised impact assessment, we use the differential as a proxy to determine the final post-policy switching rate. The new differential is subject to a switching price elasticity of 0.03%. Therefore, the post-policy switching rate is decreased in order to reflect a reduced price differential (i.e., SVT large suppliers vs FTC challenger and small suppliers). This is influenced by an assumption based on historical evidence that large suppliers will match the price cap, whilst having costs lower than the cap.

4.89. We assume that a customer of a failed supplier will be on a tariff that matches the DTC regardless of the size of the new supplier.

4.90. We did not assume varying switching rates depending on the level of engagement of consumers. Therefore, we do not account for the fact that the failure of a larger supplier might lead to lower customer switching costs than the failure of a challenger supplier, due to their higher proportion of FTC. This is not material as we assume that customer switching costs upon SAR to be zero.

Administrative costs

4.91. Ofgem is required to appoint administrators in the event of a supplier failure. These costs will then be passed onto consumers through the SoLR levy. The policies introduced will have the desired effect of reducing administrative costs by reducing the number of supplier failures. We assume administration costs per customer of £16 based on previous administrator reports.

SoLR process and SAR regimes

4.92. When a supplier becomes insolvent, Ofgem will seek to revoke the licence of that supplier and appoint a Supplier of Last Resort (SoLR) to take on that supplier's customers. If above one million customers, it is likely that the insolvent supplier would qualify for an Energy Supply Company Administration Order under the Special Administration Regime[19] (SAR). For the purposes of this impact assessment, we apply the one million customer threshold to distinguish suppliers' mutualised costs following two logics. This has implications for:

- Retained hedges – when small suppliers fail, we assume they enter a SoLR process and therefore, regardless of their hedging position, hedges are not retained. This is because shareholders will liquidate any in-the-money hedges. For large suppliers we assume 75% of hedges that would have been expected under the price cap are retained in a SAR, while challenger suppliers above one million customers will retain 20% of hedges. This reflects historical data showing larger suppliers are more likely to be better hedged at a given point in the period. We assume, in the event of failure, the failed supplier will be taken over by a supplier of the same size category. For example, if a challenger supplier fails, we assume another challenger supplier will be accounted to raise the funds that will be mutualised to all consumers.

  Furthermore, we assume that suppliers will be able to improve their respective cost of capital when funding the baseline hedges. Therefore, we only apply the additional short-term costs of capital to the incremental capital raised due to the policy in place. We assume that small suppliers improved cost of capital will not improve the baseline cost of protected hedges as their hedging is primarily not coming from equity capital. Therefore, ringfencing options do not lead to indirect benefits.

- Switching costs – We assume that when a large or challenger supplier fails there is no switching cost to consumers. In contrast, customers of small suppliers entering a SoLR process are transferred onto an SVT and may even switch again to get a cheaper deal than the SVT they were put on. The former assumption could be an underestimation of the benefits as customers may also want to avoid staying with a supplier under an administration regime.

[19] Memorandum of Understanding: Energy Supply Company Administration | Ofgem

Our final position

4.93. We have responded to the policy consultation by making changes to our estimates, however the general framework of the assessment remains built around a credit rating framework. Most notably we have:

- Considered the shorter-term costs to suppliers of raising capital;
- Linked future CCBs to future wholesale prices;
- Reflected our understanding of tariff dynamics, and
- Accounted for larger suppliers entering a SAR rather than a SoLR and the difference this makes to the retention of capital.

4.94. This impact assessment does not include all the detail found in the consultation. Notably, capital is assumed to cost the same across policies. However, we understand that the rules for ringfencing are more restrictive than for capital adequacy, which may come at a higher cost to suppliers. Additionally, we assume that all capital raised as a result of the policy options will be protected under supplier failure, however in practice if a supplier entered a SoLR, then any capital as part of the capital requirement will be lost.

4.95. We have been cautious in our choice of where there is uncertainty or lack of a developed framework. We therefore consider the methodology used in this updated impact assessment to provide a conservative estimate of the benefits of the policy options.

Summary of key differences to previous Impact Assessment

Table 10: Summary of Key Differences to Previous Impact Assessment

<table>
<tr><th></th><th>Size of Supplier</th><th>Previous Impact Assessment</th><th>This Impact Assessment (2028 Evaluation Year)</th></tr>
<tr><td rowspan="3">Cost of capital</td><td>Large</td><td>1.12% (BBB)</td><td>8.8% (BBB)</td></tr>
<tr><td>Challenger</td><td rowspan="2">Pre-Policy: 11.61%
Post-Policy: 5.38% (B)
(Partial Effectiveness)</td><td>Pre-Policy: 11%
Post-Policy: 9.6-10.3%</td></tr>
<tr><td>Small</td><td>Pre-Policy: 11%
Post-Policy: 9.6-10.3%</td></tr>
<tr><td rowspan="3">Default Rates</td><td>Large</td><td>0.06% (BBB)</td><td>0.06% (BBB)</td></tr>
<tr><td>Challenger</td><td rowspan="2">Pre-Policy: 11.61%
Post-Policy: 2.22%
(Partial Effectiveness)</td><td>Pre-Policy: 7.95%
Post-Policy: 0.99-3.62%</td></tr>
<tr><td>Small</td><td>Pre-Policy: 7.95%
Post-Policy: 2.12-3.98%</td></tr>
<tr><td rowspan="3">SAR/SoLR Regime</td><td>Retained Hedges: Large</td><td>0%</td><td>SAR: 75%</td></tr>
<tr><td>Retained Hedges: Challenger</td><td rowspan="2">0%</td><td>SAR: 20%</td></tr>
<tr><td>Retained Hedges: Small</td><td>SoLR: 0%</td></tr>
</table>

Ranges represent the different policy options

5. Monetised and non-monetised costs and benefits of main options

Section summary

This section describes our analysis of the monetised and non-monetised impacts of the proposals. It covers our assessment of the distributional impacts across consumers, the impact on competition and sustainability, and our view of the reasonableness of any administrative burdens. We summarise our view at the end of the section.

Drivers of costs and benefits

Protected and unprotected capital

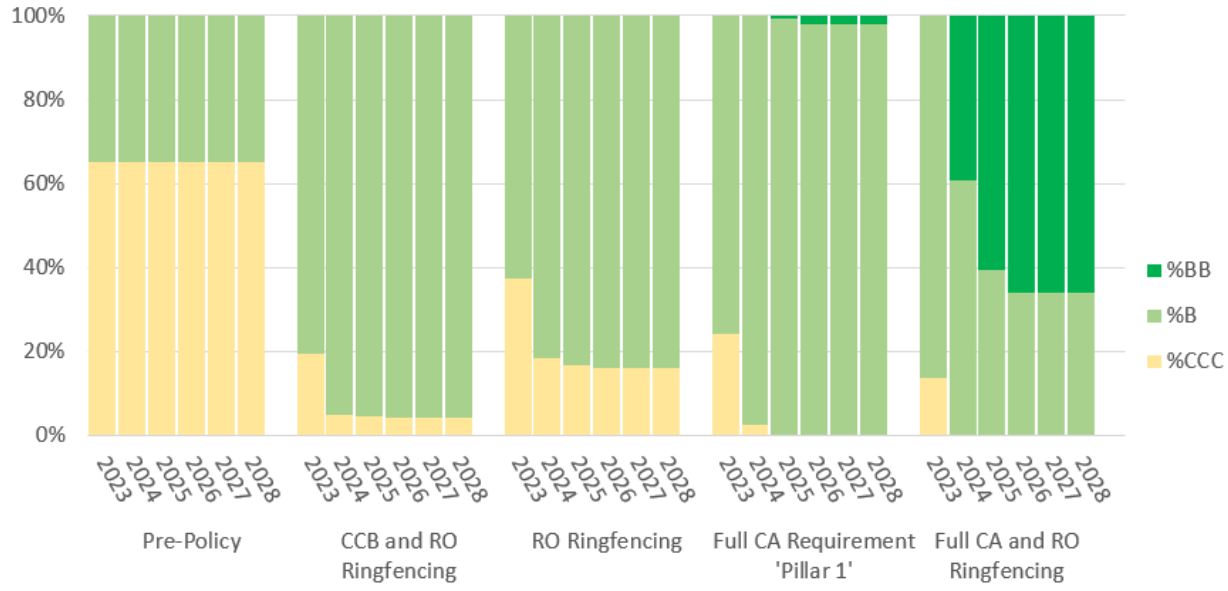
5.1. All the policy proposals within this consultation will ensure suppliers hold appropriate levels of capital. This will transfer the capital at risk from consumers to suppliers by the amount of protection enforced through the policy. Because we assume that both customers and suppliers pay for this capital at the WACC (customers through opportunity cost and suppliers through raising extra capital to meet policy requirements) there is no net change in the costs. However, there is an overall societal benefit from the transfer of risk because suppliers credit ratings and risk of failure improve with the amount of capital they hold.

Credit rating improvements

5.2. By transferring the burden of risk from consumers to suppliers, all the proposals should reduce supplier risk-taking, and therefore lower the likelihood and cost of failure. We have used the credit rating methodology as a framework for estimating the impact of the policy options on those risks and costs. Figure 10 shows how the credit rating methodology estimates the impacts of the policy options. Sensitivity analysis shows that even by weakening the estimated improvement that the additional capital has on credit ratings, the proposed policies are still expected to provide positive consumer benefits (see Appendix A).

5.3. Under our framework[20], all policy options are expected to raise a proportion of suppliers from the credit risk associated with a CCC rated company to a B rating or higher. Capital adequacy measures and ringfencing of RO receipts (Option 4) is the policy that improves credit ratings of small suppliers the most. This is because small suppliers will be required to protect more capital under capital adequacy measures and RO ringfencing than the other policies.

Figure 10: Estimated mix of supplier credit ratings of challenger and small suppliers under each option (2023-2028)



5.4. Lower supplier risk will reduce the expected number of suppliers entering a SoLR or SAR and therefore:

- reduce the administrative costs on suppliers and customers
- reduce the number of inefficient switches;
- reduce the cost of mutualisation to consumers insuring suppliers; and
- reduce the cost to suppliers in raising the required capital

[20] There is no evidence to suggest by how much credit ratings will improve by increasing ringfencing or capital employed requirements and therefore the estimates below act as a framework for assessing this relationship.

5.5. It is important to remember that for unprotected capital, we use the WACC to estimate the opportunity cost of customers. And for protected capital, we use the WACC plus short term additional costs of capital.

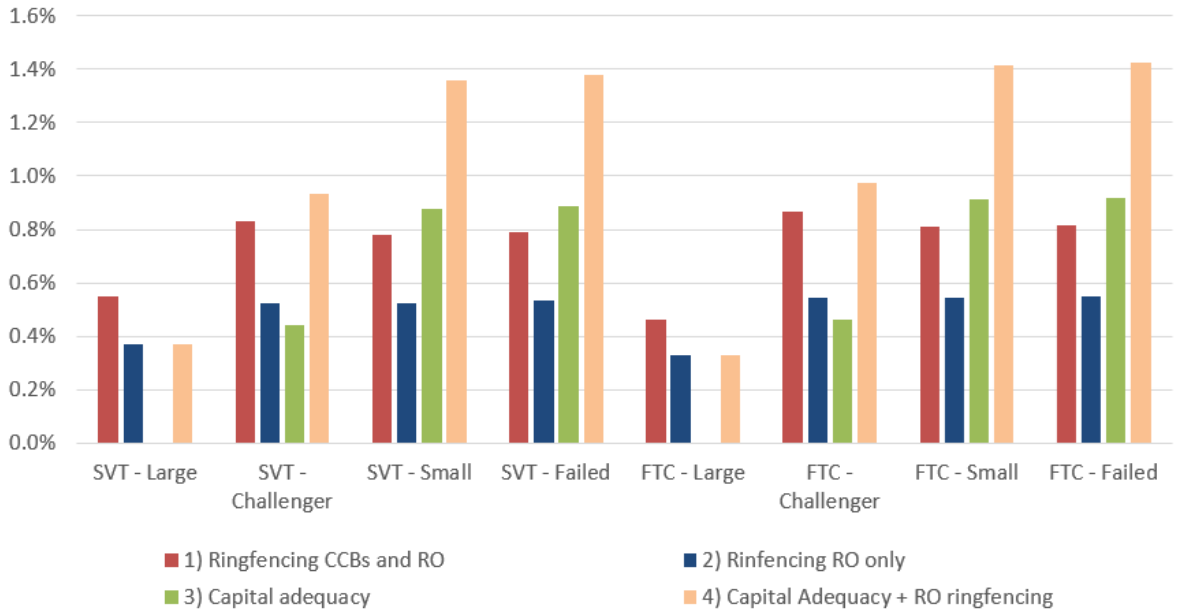
Tariff dynamics

5.6. Raising the capital needed to meet the policy requirements may come at a cost to some suppliers, who will pass at least part of these costs onto their customers. Figure 11 shows our gross estimates of how much SVTs and FTCs could increase without the benefit of lower mutualised costs reducing those tariffs by more than the increase.

5.7. For challenger and small suppliers, the percentage increase in tariffs is greatest for the policies with greatest capital requirements making option 4 - capital adequacy plus RO ringfencing - the costliest. However, option 4 provides some of the greatest benefits and is therefore important to remember that these tariff increases will be outweighed by the lowering costs of mutualisation so overall tariffs will fall.

5.8. There is no increase in tariffs from capital adequacy requirements for large suppliers because we assume that large suppliers are already at the DTC. As the allowance for the DTC is not considered for capital raised as part of a capital requirement then large suppliers cannot increase their tariffs. This can be seen in the effects of policy options 3 and 4.

Figure 11: Percentage gross increase in tariffs by policy excluding the benefits of lower mutualised costs



Distributional impacts across consumers

5.9. There are several important distributional impacts of the suggested policy options. The general transfer of costs/risks move from the generality of consumers, including disengaged consumers, back to engaged consumers of unsustainable suppliers. This creates a small positive distributional impact since low-income consumers are more likely to be disengaged. This small positive distributional impact is demonstrated by the difference between the unweighted and equity adjusted benefits in tables 11 to 16.

5.10. The proposed policies are likely to cause transfers between parties:

- Disengaged consumers will transfer less money to the customers of failed suppliers to cover for mutualised CCBs and RO.
- Disengaged consumers, will generally transfer less to the customers of failed suppliers to cover differences between wholesale prices and allowances under the price cap, due to the lower frequency of default. This difference is only material in an increasing wholesale prices environment.
- Customers of suppliers who would otherwise fail are likely to face higher prices due to decreased incentives for those suppliers to offer unsustainably low prices based on subsidised capital. Other engaged consumers may see a knock-on impact, at least in the short run, if reduced competitive pressure on rival suppliers allows them to increase their prices.
- Customers of failed suppliers, and suppliers themselves, will see reduced switching costs due to a reduced failure rate, and hence reduced rates of forced switching (e.g., after a SoLR process).

Monetised costs and benefits

5.11. The tables below present each of five impacts across the three different consumer segments (Customers of Failed Suppliers, Engaged Customers with non-Failed Suppliers, Disengaged Customers). We present the Net Present Value (NPV) from 2023 to 2028 discounted at 3.5% according to HMT Green Book[21]. A positive number indicates a benefit to customers.

[21] The Green Book, Central Government Guidance on Appraisal and Evaluation | HM Treasury

5.12. Like the previous impact assessment, the monetised consumer impacts we have considered are:

- **Ringfencing cost and mutualisation of CCB/RO:** The cost of protecting CCBs and RO receipts, mutualised in the event of supplier failure, will be transferred from customers to suppliers. This is offset by the increases to tariffs that suppliers make to recover the costs of that protection. Given suppliers' need to potentially replace that capital, we expect the moral hazard to be addressed and thus, ultimately, both their likelihood of failure and cost of capital will decrease, benefitting customers from the reduction in the cost of protection. Some customers will face higher near-term prices as the removal of subsidised capital from those suppliers most likely to fail causes those suppliers to increase their prices.
- **Replacing hedges of failed suppliers:** The mutualised costs of supplying the customers of failed suppliers at tariffs subject to the price cap, as recovered via the SoLR levy and through SAR cost recovery, will be reduced as the risk of supplier failure decreases with both ringfencing and capital adequacy.
- **Additional tariff effects:** As suppliers are required to maintain a minimum level of capital, their customers no longer benefit from unsustainably low protection against market shocks and the tariffs they receive increase accordingly. Additionally, competition will be affected by the changes in supplier costs. Large suppliers can use their 'brand premium' to retain customers at a tariff higher than they could price at given their costs. This will increase costs to customers of large suppliers.
- **Inefficient switching**: Due to a lower failure rate, there will be a lower number of customers of failed suppliers that are likely to switch from the SoLR to another smaller supplier. Also, the lower price differential between SVT of a SoLR and FTC will decrease both the switching rate and the savings made in switching to an unsustainable cheap tariff. _
- **Admin costs**: Consumers will have to pay for the additional implementation and enforcement costs that Ofgem will incur in administering the policy, and the costs suppliers may incur in ensuring compliance with the policy. This is offset by lower administration costs associated with supplier failures.

Option 1: Ringfencing of RO receipts and CCBs

5.13. We estimate the net consumer benefits of ringfencing 100% of RO receipts and 30% of CCBs to have a positive NPV of **£204m** over the next six years, equivalent to £40m per year on average.

5.14. These benefits are largely driven by the reduction in the cost of capital following improved capitalisation to ringfence RO receipts and CCBs. There is a net benefit from the protection of balances (which are not mutualised on supplier failure) but also from the lower mutualised wholesale costs associated with reducing supplier failure.

5.15. Furthermore, by requiring suppliers to protect CCBs and RO receipts, they are less likely to engage in riskier use of capital, lowering the failure rate and therefore reducing the inefficient switching and administrative costs from supplier failure.

5.16. There is a considerable distributional effect, as the ability for risky suppliers to price unsustainably low is reduced by their increased costs the benefits transfer from customers of failed suppliers and engaged customers who could previously take advantage of the low prices to disengaged customers.

Table 11: Estimated consumer benefits of ringfencing RO receipts and CCBs (NPV 2023-28, £m)

	Customers of Failed Suppliers	Engaged Customers with non-Failed Suppliers	Disengaged Customers	Total NPV	Annual Average
Ringfencing cost and mutualisation of CCB/RO	-71	-281	216	-136	-24
Replacing hedges of failed suppliers	18	84	119	220	41
Inefficient switching	189	12	17	218	41
Admin costs	4	21	29	54	10
Additional tariff effects	7	28	-187	-152	-28
Total (£m)	**146**	**-137**	**195**	**204**	**40**
Total per affected customer (£)	62.43	-12.31	12.32	6.98	2.55
Total (social weighting) (£m)	**140**	**-131**	**203**	**212**	**42**
Total per affected customer (£)	59.85	-11.80	12.84	7.25	2.65

Option 2: Ringfencing RO receipts only

5.17. We estimate the net consumer benefits of ringfencing RO receipts only to have a positive NPV of **£242m** over the next six years, equivalent to £47m per year on average.

5.18. The estimated benefits of ringfencing of RO receipts is greater than that for ringfencing of both RO receipts and CCBs (Option 1). Whilst ringfencing of CCBs or RO on their own both have a positive NPV (£242m and £182m), in combination they add unnecessary additional costs from larger amounts of inactive capital and consumers risk 'over-insurance'. This is related to our estimates for the additional costs of challenger and small suppliers raising additional capital.

Table 12: Estimated consumer benefits of ringfencing RO receipts (NPV 2023-28, £m)

	Customers of Failed Suppliers	Engaged Customers with non-Failed Suppliers	Disengaged Customers	Total NPV	Annual Average
Ringfencing cost and mutualisation of CCB/RO	-37	-145	123	-59	-10
Replacing hedges of failed suppliers	14	64	92	169	32
Inefficient switching	140	9	13	163	31
Admin costs	3	16	23	42	8
Additional tariff effects	5	22	-100	-73	-14
Total (£m)	**125**	**-33**	**150**	**242**	**47**
Total per affected customer (£)	53.58	-3.00	9.50	8.28	2.95
Total (social weighting) (£m)	**120**	**-32**	**156**	**245**	**49**
Total per affected customer (£)	51.37	-2.88	9.90	8.37	3.08

Option 3: Capital adequacy 'pillar 1' capital requirement

5.19. We estimate the net consumer benefits of Capital adequacy 'pillar 1' capital requirement to have a positive NPV of between **£413m and £539m** over the next six years for the requirement of £110 to £220 per customer, respectively, equivalent to £78m to £102m per year on average. This is therefore the policy with the greatest monetised benefits case over the first six years of the policy. Table 14 shows the benefits for the £220 per customer option.

5.20. A capital adequacy approach will reduce the cost of replacing hedges of failed suppliers by between £434m and £1.09bn NPV over the next six years. However, as the ability for risky suppliers to price unsustainably low is reduced by their increased costs the benefits transfer from customers of failed suppliers and engaged customers who could previously take advantage of the low prices to disengaged customers.

5.21. Furthermore, the capital buffer will improve suppliers' ability to ride out shocks and avoid failures shown by the benefit from avoiding CCBs and RO receipts mutualisation as well as the reduction in admin costs and inefficient switching.

5.22. As described in Section 4, for the capital used in the capital buffer requirement, suppliers will not have an allowance to pass on the extra cost through the DTC which means these costs must be internalised.

Table 13: Estimated consumer benefits of capital adequacy 'pillar 1' £110 per customer capital requirement (NPV 2023-28, £m)

	Customers of Failed Suppliers	Engaged Customers with non-Failed Suppliers	Disengaged Customers	Total NPV	Annual Average
Ringfencing cost and mutualisation of CCB/RO	8	39	56	104	20
Replacing hedges of failed suppliers	35	165	235	434	82
Inefficient switching	126	9	12	147	28
Admin costs	3	15	21	39	7
Additional tariff effects	-60	-251	0	-311	-59
Total (£m)	**112**	**-23**	**324**	**413**	**78**
Total per affected customer (£)	48.11	-2.10	20.49	14.12	4.95
Total (social weighting) (£m)	**108**	**-22**	**337**	**423**	**81**
Total per affected customer (£)	46.12	-2.01	21.35	14.46	5.15

Table 14: Estimated consumer benefits of capital adequacy 'pillar 1' £220 per customer capital requirement (NPV 2023-28, £m)

	Customers of Failed Suppliers	Engaged Customers with non-Failed Suppliers	Disengaged Customers	Total NPV	Annual Average
Ringfencing cost and mutualisation of CCB/RO	12	58	83	153	29
Replacing hedges of failed suppliers	88	415	591	1094	208
Inefficient switching	218	13	18	248	47
Admin costs	5	22	31	57	11
Additional tariff effects	-196	-819	0	-1014	-192
Total (£m)	**126**	**-311**	**723**	**539**	**102**
Total per affected customer (£)	54.09	-28.02	45.77	18.43	6.48
Total (social weighting) (£m)	**121**	**-298**	**753**	**577**	**107**
Total per affected customer (£)	51.86	-26.86	47.70	19.73	6.75

Option 4: Capital adequacy 'Pillar 1' capital requirement plus ringfencing of RO receipts

5.23. We estimate the net consumer benefits of Capital adequacy 'pillar 1' capital requirement plus ringfencing of RO receipts to have a positive NPV of between **£386m and £483m** over the next six years for the requirement of £110 to £220 per customer, respectively, equivalent to £74m to £93m per year on average.

5.24. The allowance for increased costs to suppliers within the DTC will only apply to the cost of RO protection. Therefore, suppliers will only be able to pass the costs of the capital requirement when their WACC is at or below 10%. However, in practice, as challenger and small suppliers are undercutting large suppliers pre-policy, we observe that despite having a WACC above 10%, they will be able to pass on the costs associated with capital adequacy policy to both their SVT and FTC customers. Also, we assume that FTC increase is the same as SVT increase because of the competitive constraint imposed by large consumers lower WACC.

5.25. This is the policy with the greatest capital requirements and therefore enables suppliers to reach the highest average credit rating. However, this results in diminishing marginal benefits as the increased cost of capital begins to outweigh the benefits of improving the WACC. This is the main reason why the benefits of capital adequacy plus RO ringfencing are lower than the benefits of just capital adequacy.

Table 15: Estimated consumer benefits of capital adequacy 'pillar 1' £110 per customer capital requirement plus ringfencing RO receipts (NPV 2023-28, £m)

	Customers of Failed Suppliers	Engaged Customers with non-Failed Suppliers	Disengaged Customers	Total NPV	Annual Average
Ringfencing cost and mutualisation of CCB/RO	-31	-119	136	-14	-2
Replacing hedges of failed suppliers	40	192	273	506	96
Inefficient switching	194	13	18	225	42
Admin costs	5	22	31	58	11
Additional tariff effects	-56	-233	-100	-389	-74
Total (£m)	**152**	**-125**	**359**	**386**	**74**
Total per affected customer (£)	65.01	-11.27	22.72	13.20	4.68
Total (social weighting) (£m)	**146**	**-120**	**374**	**400**	**77**
Total per affected customer (£)	62.33	-10.80	23.67	13.68	4.88

Table 16: Estimated consumer benefits of capital adequacy 'pillar 1' £220 per customer capital requirement plus ringfencing RO receipts (NPV 2023-28, £m)

	Customers of Failed Suppliers	Engaged Customers with non-Failed Suppliers	Disengaged Customers	Total NPV	Annual Average
Ringfencing cost and mutualisation of CCB/RO	-24	-87	151	40	9
Replacing hedges of failed suppliers	92	436	621	1148	218
Inefficient switching	256	15	22	293	55
Admin costs	5	26	37	68	13
Additional tariff effects	-186	-780	-100	-1066	-202
Total (£m)	**143**	**-390**	**730**	**483**	**93**
Total per affected customer (£)	61.21	-35.16	46.24	16.54	5.90
Total (social weighting) (£m)	**137**	**-374**	**761**	**524**	**97**
Total per affected customer (£)	58.68	-33.71	48.19	17.94	6.15

Comparison of benefits case

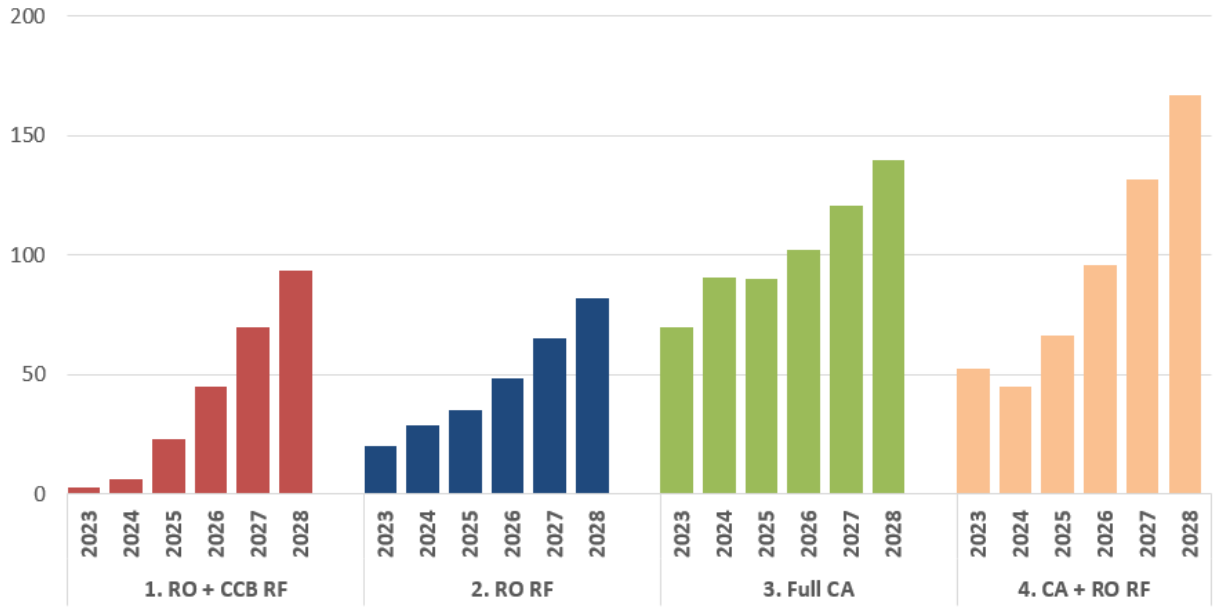
5.26. Considering the benefits of each policy in the immediate six years of the policy gives a picture of the shorter-term implications of the polices before an equilibrium market is met. These assumptions include shorter term market assumptions and lags in the policy reaching full efficiency. You can see the assumptions utilised to build this forecast in Section 4.

5.27. Each policy sees a growth in the annual benefits to customers over the six years which is caused by several factors:

- Increasing levels of capital held by suppliers (in 2023-24)
- Improvements in challenger and small suppliers' cost of capital and default rates
- Underlying reduction in the additional capital costs for challenger and small suppliers associated with wider market reforms and clearer track record of progress.

5.28. Figure 12 shows that all policy options create positive benefits in each year of the evaluation period. Although option 3 has the greatest NPV across the 6-year evaluation, option 4 ends up having the largest benefits by the end of the period. Considering a 20-year NPV option 4 creates the most benefits to customers.

Figure 12: Consumer benefits by policy options (2023-2028, £m)



Impact on competition and sustainability

Previous assessment

5.29. The policy consultation (paragraph 7.26) summarises our initial assessment of the impact on competition in which we have said we believe the proposals, alongside other measures, are likely to enable a more sustainable competitive market that should be beneficial to consumers over time through increased market stability and a better environment for innovation to take place. We recognised that the proposals could affect suppliers' entry and/or expansion and could even lead to exit. However, we believed that it is beneficial to consumers to limit the opportunities for inefficient expansion or entry.

5.30. Oxera's report for GEMA found that in the run-up to last year's price shock the market contained a significant number of suppliers that funded their growth using consumers' own money and used this to opportunistically offer lower prices than could be sustained over the longer term. This made it harder for retailers with more sustainable models to compete and grow, while the apparent savings to consumers from the cheaper prices proved illusory once the costs of failure became evident.

Feedback from the previous consultation

5.31. Two suppliers said the proposed measures would increase the cost of raising funds, making the market less attractive and damaging the competitive landscape which

will lead the market back towards an oligopoly. One supplier quoted that the proposals "damage competition, handing legacy suppliers an unearned advantage".

5.32. One supplier commissioned a report which compared the Ofgem proposals with the prudential regulation in the banking sector. It drew parallels between the proposals of capital adequacy and CCB ringfencing to the Basal Accords and deposit guarantees, respectively. They concluded that, despite significant prudential regulation, there has been an increase in the number and variety of new entrants into the banking sector. Furthermore, these new entrants bring greater consumer choice and lower prices which can be emulated in the energy sector.

Our analysis

5.33. All the options under consideration are designed to prevent the use of unsustainable growth strategies in future. While this is likely to result in a smaller number of competitors than was seen before the price shock, our baseline assumption is that competition will then take place on a more sustainable basis, and over the longer-term will lead to a greater level of consumer benefits than was the case previously. At the same time, however, it is also important to consider the possibility that deterring market entry could result in an overall weaker level of competition and lower accompanying consumer benefits.

5.34. To inform this, we have carried out an assessment of the consumer benefits that competition has delivered to date, categorised by supplier segment. This provides a view of what could potentially be at risk under different scenarios of future market entry and exit.

5.35. For the purposes of this competition analysis, we have defined the four types of suppliers as set out in Table 17.

Table 17: Types of suppliers

Type	Definition
Former incumbents	Remaining former monopoly suppliers
Challengers[22]	New entrants with market share over 5%, significant financial backing and broader tariff offering
Other new entrants	All other surviving new entrants
Failed new entrants	New entrants that failed from 2019 onwards

5.36. In line with what the CMA set out in their Energy Market Investigation,[22] we would expect the benefits of competition to be seen in the areas of price, service levels and innovation. Our assessment of each of these is as follows:

Consumer prices

5.37. Data from our most recent Consumer Impacts of Markets Conditions Survey shows that getting a cheaper tariff is the main reason consumers have switched tariff or supplier.[23] Where energy supply continues to mirror commodity market characteristics, in that the product offered by all suppliers is broadly or entirely the same, we would expect price to be the primary focus of competition, and therefore the area of largest benefits. Our calculation of these benefits has been conducted as follows:

- Although we assume a six-year evaluation period, we have restricted our calculations to the years following the introduction of the default tariff price cap in January 2019, as the impact of this would distort any analysis that went back further than this date.
- Within this period, we have calculated the savings delivered by each new entrant by taking the difference between their average tariffs and those offered by the former incumbent suppliers and multiplying it by their number of customers.
- In relation to the former incumbents, our analysis suggests that the discount between these suppliers' fixed tariffs and their standard variable tariffs has increased markedly since competition became established. We therefore consider it is reasonable to attribute the value of this increase to the effects of competition. Given that these suppliers' SVTs have remained consistently at the price cap level since its introduction, however, we do not see any competition-related consumer benefit in relation to these tariffs.

5.38. This approach provided us with an estimate of the annual savings being delivered to consumers prior to the recent energy crisis. This suggests that the largest benefit came from the price reductions offered by the former incumbents in response to competitive pressures, given that they still had most customer accounts. After this,

[22] Energy Markets Investigation Final Report, 96-7 | CMA
[23] Consumer Impacts of Markets Conditions survey: Waves 1 (March 2022) & 2 (July 2022) | Ofgem

the next largest category was from the failed new entrants, but as these proved to be unsustainable, they are not counted as genuine savings to consumers.

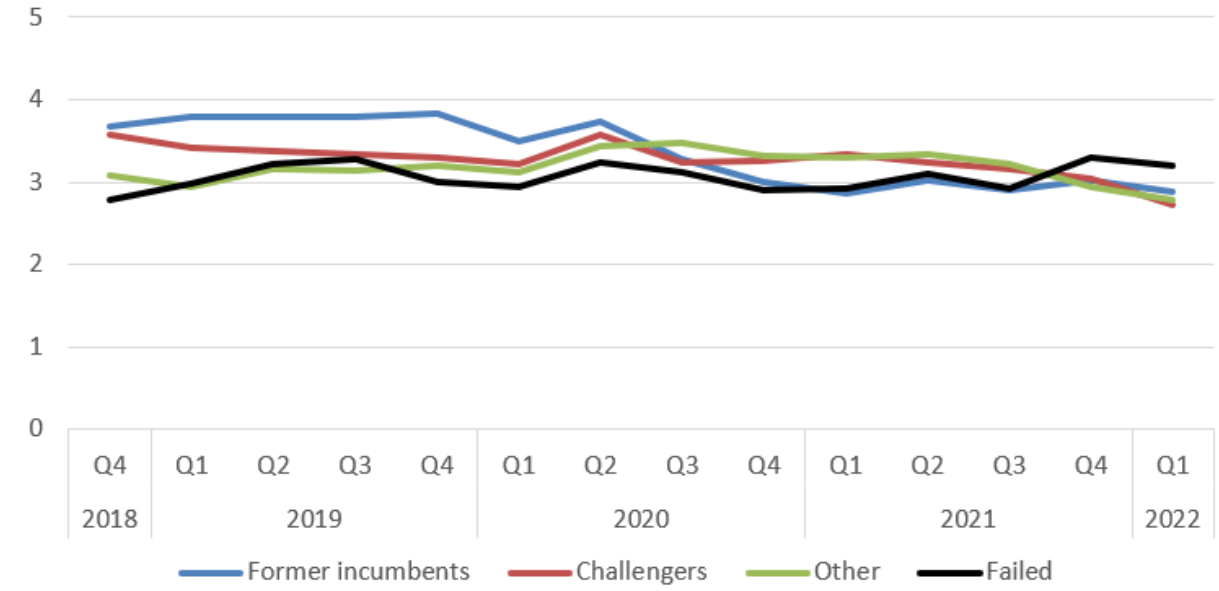
5.39. From the findings above, we can assess what would be at risk should these measures result in a reduction in competition:

- Our starting assumption is that we would expect that over time the customers of failed suppliers will move to suppliers in the challenger and other new entrant groups. The direct savings they receive will be lower than before, but this would represent an increase in aggregate consumer benefits, since these savings should be sustainable, whereas the previous figure led to losses in the long term.
- If it emerges that the new arrangements also deter entry by companies with sustainable business models, there could be negative impacts on price, though the extent of these would vary widely depending on the extent to which competition narrowed. With over twenty suppliers still active in the market, we consider that the loss of a few of these would have only a limited impact on market prices.

Quality & standards

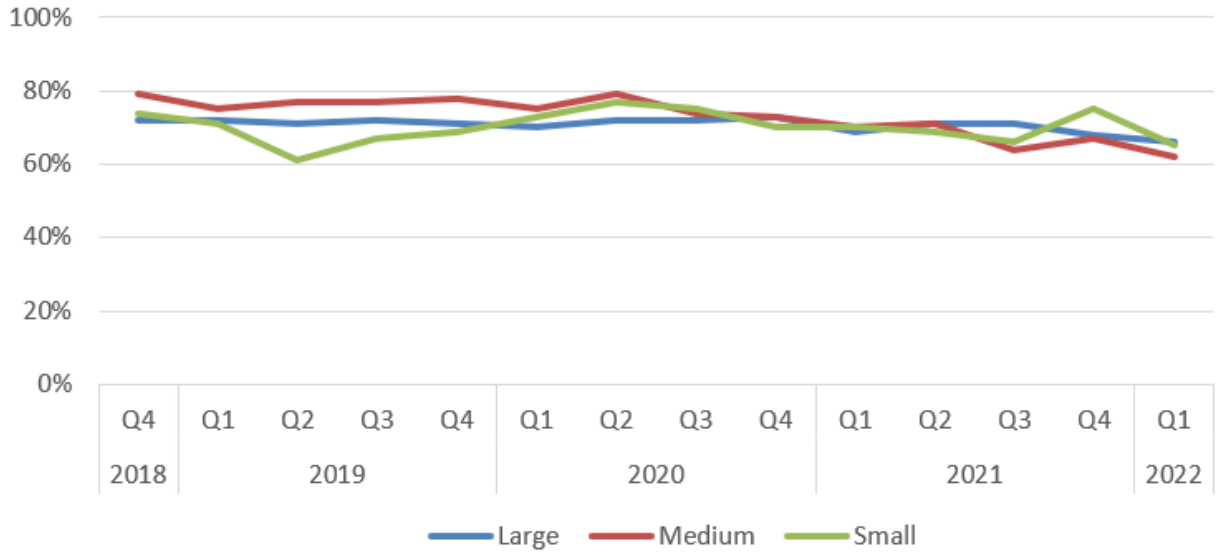
5.40. To assess service quality, we have considered two sources of data: the Citizens Advice ranking of suppliers (based on a range of measures including complaints, billing quality and contact wait times), and the quarterly consumer surveys that we commission. While the survey supplier categories do not precisely match up with those we are using in this analysis, they are similar enough to provide relevant insight.

Figure 13: Citizens Advice ranking – Overall score



Source: Ofgem analysis of Citzens Advice data

Figure 14: Ofgem survey - Customer service



Source: Ofgem energy satisfaction survey

5.41. These rankings suggest that while there has been some variation over time, for the most part the former incumbents and challengers have been the better performers. It should be noted, though, that on the specific metric of complaints, the former incumbents perform noticeably worse than new entrants.

5.42. Overall, our analysis does not provide any strong evidence either of new entrants providing better service in general, or of the former incumbents being driven to improve their performance over time. We therefore cannot conclude that the options under consideration would necessarily lead to a change in levels of customer service.

Innovation

5.43. The third way in which competition can deliver consumer benefits is through innovation. This can take a number of forms, and here we take it to relate to any developments in tariffs, business models or technologies that reflect a change from the traditional basic retail supply model. Since these can only be assessed on a more qualitative basis, in Table 18 we have set out our observations on the nature of innovations introduced within each supplier category, so that a comparison can be made of what each has brought to the market. These observations build on an analysis of supplier business models previously carried out by IGov[24].

Table 18: Assessment of innovations

Supplier Type	Innovations
Former incumbents	All these suppliers have extended their offerings, but in a relatively limited way, rarely taking the lead in bringing new products to market.
Challengers	Two of these suppliers have both developed new technology systems they have successfully sold to other suppliers. They have also taken the lead in developing time of use tariffs, and in offerings designed to serve the rising ownership of electric vehicles
Other new entrants	Some of these suppliers have built scale by focusing on individual customer segments (eg, pre-payment) or by bundling other utilities together with energy. 3 small suppliers have developed tariffs to meet higher environmental standards, meeting particular customer demands.
Failed new entrants	A higher proportion of these companies offered nothing beyond traditional supply. Of the remainder, the profile was similar to that of the "other new entrants".

[24] Changing actor dynamics and emerging value propositions in the UK electricity retail market | IGov

5.44. The evidence in Table 18 suggests that the most active innovators in the market have been the challenger brands, while the former incumbents have mostly followed rather than led. It also appears to be the case that the market exits to date have been concentrated more among companies offering traditional supply only, while innovative developments from the other new entrants have been relatively limited in both scope and take-up.

5.45. We consider that these measures should result in a net positive for innovation. If gross margins become more sustainable and consistent, then this should give suppliers greater confidence in their ability to earn a return from investments in developing new offerings. It should therefore both incentivise more investment by existing suppliers as well as encouraging potential new suppliers with innovative offerings to enter the market. If instead the number of suppliers reduces further, the impact on innovation should be limited so long as these reductions occur in the "other new entrant" group. However, if we see challenger brands exiting the market, it is likely that there would be a more significant slowdown in the emergence of new products and services.

5.46. Innovation is a key driver to achieve net zero objectives. We believe that increased financial resilience and market sustainability can only reinforce suppliers' ability to offer the new services that support the flexibility and investments of new technologies developed across sectors.

5.47. In summary, our findings are that the overall impact on competition from these measures should be positive. While we expect to see an increase in the price of the cheapest tariffs available, this should be more than balanced out by the reduction in SoLR costs over the longer term. This outcome would also be positive from a distributional point of view.

5.48. We recognise that there is some risk of an increase in concentration from a policy that increases the costs of smaller suppliers. However, since we expect that this would be accompanied by more sustainable prices and a more stable market, and increased trust in challenger suppliers (so potentially higher switching rates in the long term) we consider that this would therefore have an overall benefit on the competition process and remove barriers to investment that may be created by unsustainable pricing in the market. In terms of other aspects of competitive dynamics which are not included in our quantitative assessment, on service quality, we see a neutral impact, while in terms of innovation our assessment is that there should be a positive impact, given that these measures should lead to an improved

competitive environment for the type of sustainable challenger suppliers that have historically delivered the most beneficial innovations.

Financial impact on individual suppliers

5.49. We have assessed the potential impact each of the proposals could have on individual suppliers based on the latest 'stress-testing' RFI responses from suppliers in August 2022, supplemented with more recent data provided through the on-going monthly Financial Responsibility Principle RFI responses. We have considered external impacts on suppliers' ability to meet the proposed requirements, primarily drawing from the central and high price wholesale scenarios (winter 2023/24 gas at 208p/therm and 373p/therm, respectively).

5.50. We have assessed the reasonableness of the additional capital requirements based on analysis of the forecast profit streams and implied multiples (enterprise value / EBIT). Given the commercially sensitivity of all this information, we are unable to disclose in this public report.

Additional administrative burdens

5.51. In addition to the administrative costs of supplier failures set out in paragraph 4.91, all the options under consideration here imply additional administration activity by licensed suppliers and by Ofgem. The latter would take the form of additional monitoring and potential compliance activity within our Retail and/or Delivery & Schemes directorates[25].

5.52. We believe the burden on both sides to be minimal because each of the options requires at most a quarterly reporting and compliance cadence, and such activity would fall within existing processes (e.g., monthly Financial Responsibility Principle RFI) and licence conditions.

Our revised position

5.53. In this impact assessment, we have estimated the consumer benefits of four policy options to assess the extent to which they can achieve the policy objectives set out in Section 2. Whilst the exact benefits and costs are hard to measure precisely, our

[25] Estimated cost of monitoring and potential compliance activity up to £400k per year.

analysis is intended to provide confidence in the benefits being greater than the costs, and insight into whether the benefits of individual policies vary materially under other circumstances.

5.54. Under our base assumptions, all these options provide consumer benefit vs. the 'Do Nothing' option. We continue to believe that the benefit of risk reduction significantly outweighs the cost, which is a key influence in our overall assessment. Other consumer benefits relate to the lower social waste of inefficient switching and lower administration costs.

5.55. Our impact assessment estimates that ringfencing of RO receipts (Option 2) would have a consumer benefit of £242m over 6 years, equivalent to an annual average benefit of £3 per consumer per year.

5.56. We recognise that the monetised consumer benefits of our proposed combination of ringfencing of RO receipts and capital adequacy, £483m over six years according to our impact assessment, are less than our estimates of those benefits for capital adequacy on its own (£413m to £539m). However, we see there is a principled case for ringfencing money that was never intended to support suppliers' business operations. We also believe that the combined package of capital adequacy and ringfencing of RO receipts has the greatest long-term benefits for consumers, since our impact assessment shows that it has the highest annual benefit run-rate by 2028 (£167m per year compared to £140m for only capital adequacy).

5.57. Our competition analysis suggests that the overall impact on competition from these measures should be positive. While we expect to see an increase in the price of the cheapest tariffs available, this should be more than balanced out by the reduction in SoLR and SAR costs. This outcome would also be positive from a distributional point of view.

5.58. While on service quality, we see a neutral impact; in terms of innovation, our assessment suggests that there should be a positive impact. Indeed, these measures should lead to an improved competitive environment for the type of sustainable challenger suppliers that have historically delivered the most beneficial innovations.

6. Impact of the Enhanced Financial Responsibility Principle

Section summary

This section discusses our assessment of the impact of the Enhanced Financial Responsibility Principle, which we think is an important enabler to delivering the substantial consumer benefits of the other changes. It is not itself a material change from the existing Financial Responsibility Principle in terms of its impact on efficient suppliers. We have therefore not separately quantified the costs and benefits.

Context

6.1. In our decision letter for the existing FRP guidance,[26] we said that "we would expect a financially responsible supplier to ensure it is managing all its costs sensibly, irrespective of whether they may be mutualised or within the definition of the principle". At the time we noted that some consultation respondents said that "the principle will not provide sufficient protection to mitigate the risks of costs of irresponsible suppliers being mutualised".

6.2. The proposed Enhanced FRP has similar objectives to the existing FRP, albeit with more emphasis on financial resilience than merely minimising mutualised costs.

Need for a detailed Impact Assessment

How it fits with the other options

6.3. Enhanced FRP is a vital enabler for the main policy options and should ensure that the consumer benefits described elsewhere in this report are realised.

6.4. The principle is designed to avoid efficient suppliers from incurring additional costs. Therefore, as they become efficient and do not over rely in CCBs, tariffs should no longer reflect additional costs and therefore consumers will not see their tariffs increased as a result of the policy.

[26] Supply Licensing Review: Final Guidance on the Financial Responsibility Principle | Ofgem

Proportionality

6.5. The Enhanced FRP is not itself a material change from the existing Financial Responsibility Principle in terms of its impact on efficient suppliers. We have therefore not separately quantified the costs and benefits.

A1. Appendix A: Sensitivity analysis

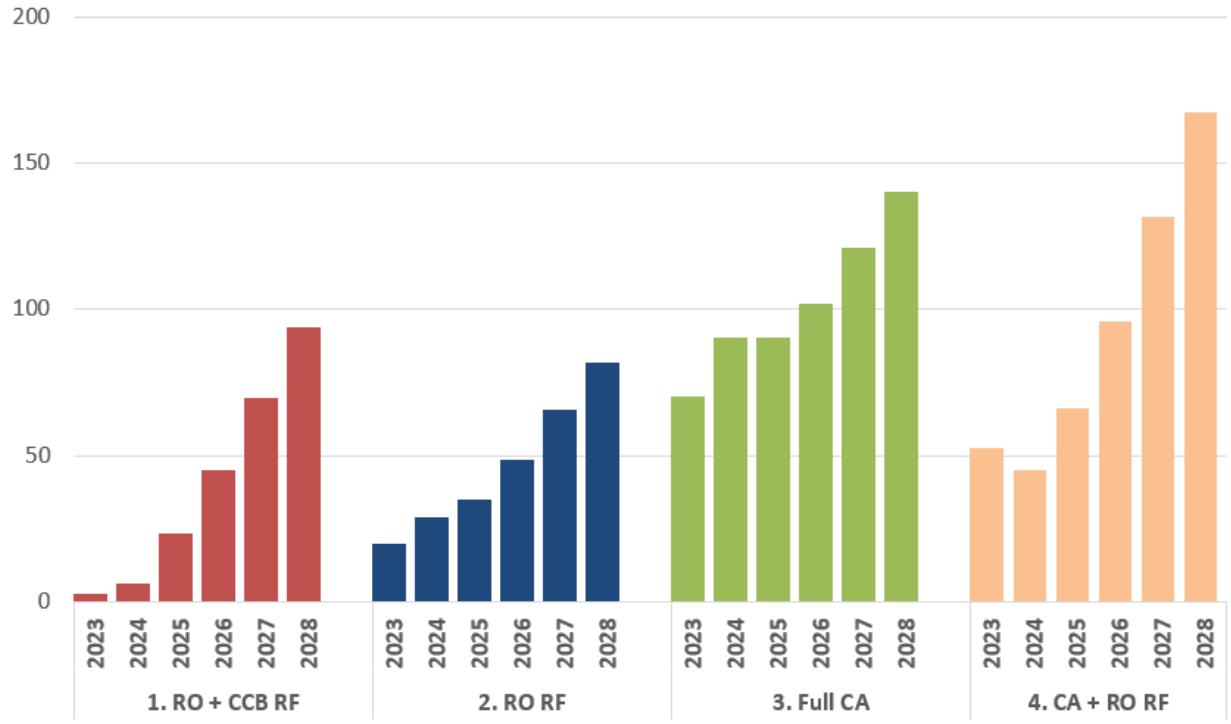
A1.1. We have performed several sensitivity analyses that provide additional results for the policy impact under different assumptions. These sensitivities show how the main results presented in the report change if important modelling assumptions are modified. They are intended to give confidence that the preferred option is robust to uncertainty in some assumptions.

Sensitivity: Short term additional costs to small and challenger suppliers are more expensive

A1.2. Another important assumption is the magnitude of the additional costs of capital faced by challenger and small suppliers. The consultations have indicated the difficulty in raising capital for challenger and small suppliers in the short term and is reflected in the additional cost of capitalisation. However, changes in the economic climate could create additional challenges for smaller suppliers obtaining credit. The sensitivity allowance below assumes the extra 500bps cost to small and challenger suppliers takes twice as long to subside, for example, in 2028 the central results assume the additional cost has subsided whereas in this sensitivity we assume it is 250 basis points (50% lower than 2023).

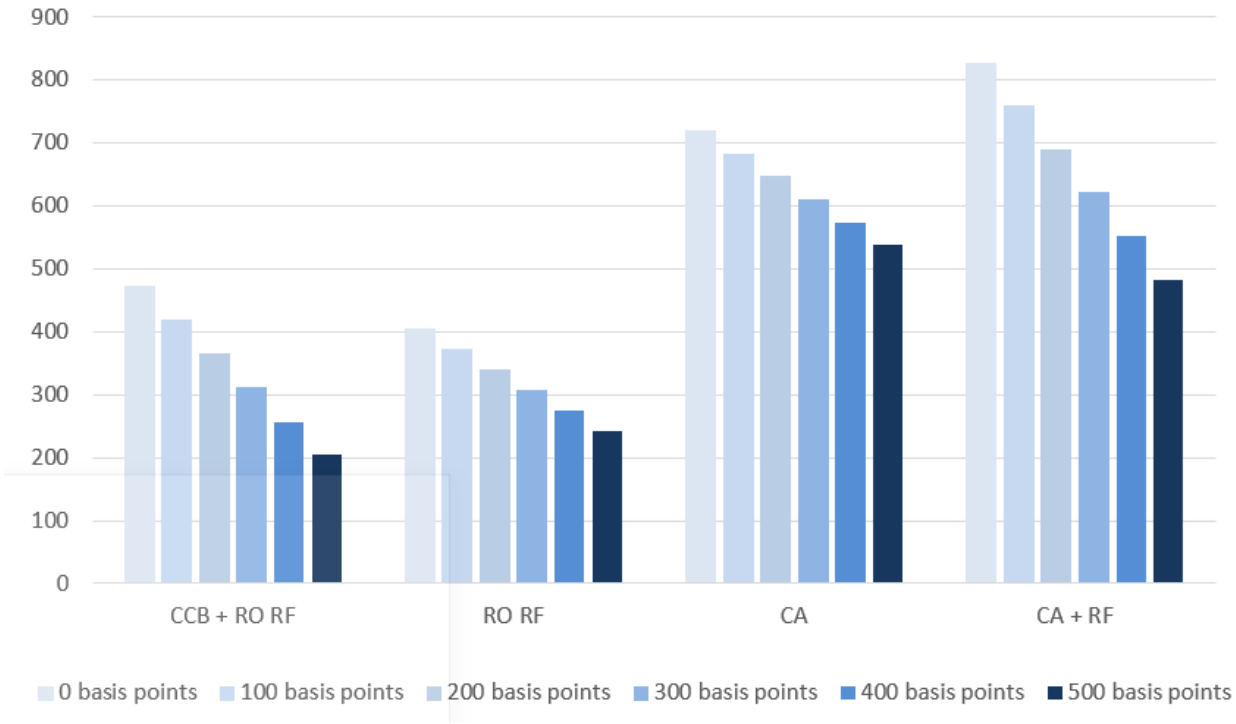
A1.3. We see that the benefits reduce for all polices. Capital adequacy remains the policy creating the most benefits to customers across the evaluation period. This sensitivity would not change the consensus of the favoured policy.

Figure 15: Sensitivity analysis – Consumer benefits by policy option (2023-2028) additional cost of capital reduces 50% slower (£m)



A1.4. It is also important to consider the magnitude of the WACC adder. Figure 15 shows the impact on the 6-year NPV of each proposed policy depending on the magnitude of the additional cost. The results show that with a lower additional cost of capital assumption capital adequacy plus RO ringfencing creates the highest benefit of the polices but at high levels just capital adequacy provides the greatest benefit. The analysis shows that these two policies are the preferred options whatever the choice of additional cost.

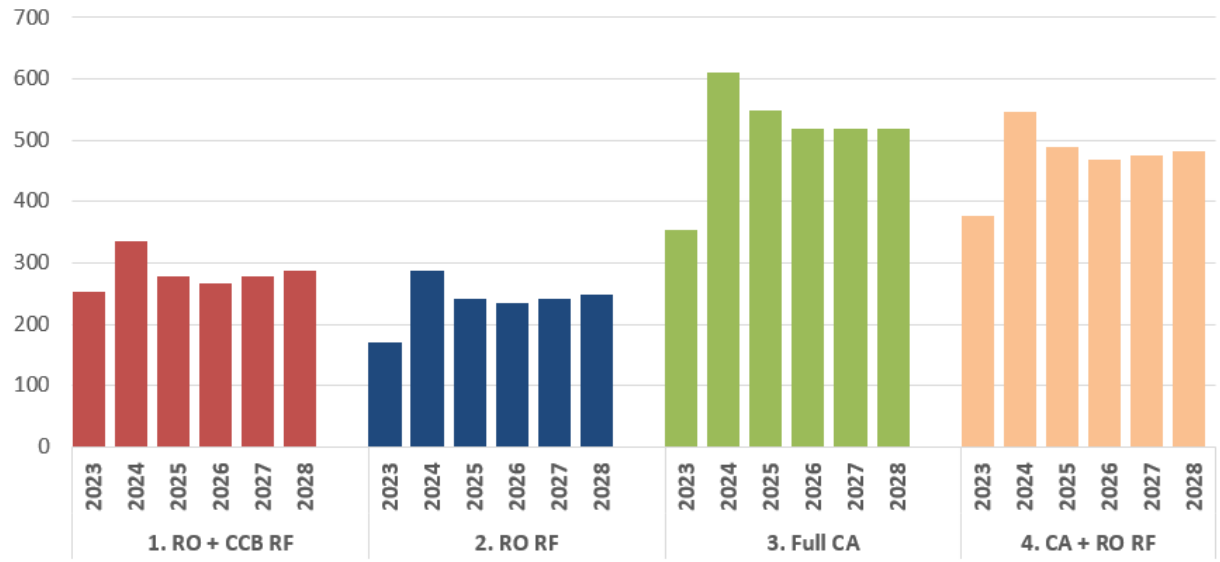
Figure 16: Sensitivity analysis – 6 Year NPV by policy option (2023-2028) additional costs of capital from 0-500bps (£m)



Sensitivity: Using cost of debt instead of cost of capital

A1.5. A third key assumption, described in Section 4, is that we use the change in the WACC rather than the cost of debt (or default rate) to measure the benefits to consumers of reducing the risk of failure by suppliers. If we were to use the default rate or cost of debt, the benefits of the policy options would all be significantly larger, as the WACC is assumed to be less sensitive to default risk than the cost of debt. While on balance we consider the WACC to be more appropriate, this sensitivity illustrates that the size of benefits could be higher than illustrated in our scenarios above.

Figure 17: Sensitivity analysis – Consumer benefits by policy option (2023-2028) default rate instead of WACC (£m)

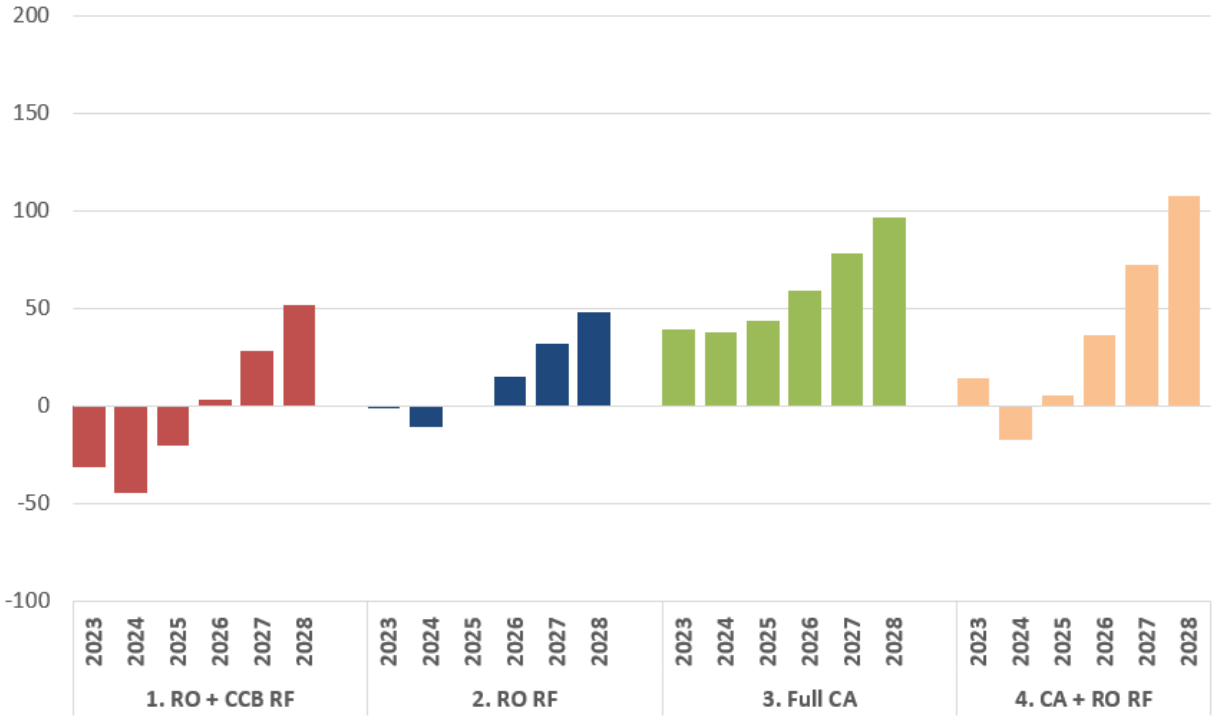


Sensitivity: Credit ratings are less responsive to capitalisation

A1.6. We use credit ratings as a framework to estimate how the improved financial resilience of suppliers will enable them to secure higher credit ratings and therefore improve their costs of capital. It is difficult to say to what extent suppliers' credit ratings will improve although we believe our central assumption to be a conservative estimate. To test the sensitivity of this assumption we have therefore estimated the benefits to customers assuming incremental capital is 50% as effective as the central estimate.

A1.7. Overall, the benefits to customers reduce for all policies in all years. Capital adequacy remains the policy with the greatest benefits across the evaluation period. This sensitivity would not change the consensus of the preferred policy.

Figure 18: Sensitivity analysis – Consumer benefits by policy option (2023-2028) 50% incremental capital effectiveness (£m)



Sensitivity: Credit ratings are updated with a two-year lag

A1.8. One of our assumptions is that once the policy is implemented, suppliers' investment ratings will start improving from the first year. As before, one supplier informed us that it would take "several years of sustained profitability" to achieve investment grade rating. Therefore, if Ofgem were to implement these policies then we must be conscious of potential delay to supplier resilience and credit agencies to re-evaluate suppliers. Below, we examine the effects of including a lag to WACC improvement.

A1.9. For this sensitivity analysis, we have added 2 years of lag before any improvement to the credit rating and therefore the WACC.

Figure 19: Sensitivity analysis – Consumer benefits by policy option (2023-2028) WACC improvements starting from 2025 (£m)