

| Title: Regulatory Powers for Smart Data Initiatives IA No: BEIS022(C)-20-CCP RPC Reference No: RPC-BEIS-5009(1) Lead department or agency: BEIS Other departments or agencies: DCMS | Impact Assessment (IA) | | | |
|--|---|--|--|---------------------------------------|
| | Date: 09/09/2020 | | | |
| | Stage: Development/Options | | | |
| | Source of intervention: Domestic | | | |
| | Type of measure: Primary Legislation | | | |
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| Summary: Intervention and Options | | | | RPC Opinion: Informal Sighting |

| Cost of Preferred (or more likely) Option (in 2016 prices) | | | |
|--|----------------------------|-------------------------------|-------------------------------|
| Total Net Present Social Value | Business Net Present Value | Net cost to business per year | Business Impact Target Status |
| £m | £m | £m | |

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

Problem under consideration: The complexity faced by consumers and SMEs in navigating markets makes getting the best deal difficult. This complexity has led to a 'loyalty penalty' and low satisfaction in regulated markets. Data portability could enable services that use consumer data to better navigate markets. However, it is difficult for customers to access and use data that firms hold about them. Despite existing data mobility interventions, processes remain complicated and there is a lack of standardization, and slow progress of 'Smart Data' initiatives that aim to improve customers' experience of data portability.

Intervention is necessary: to resolve these issues giving customers more effective ways to use their data.

What are the policy objectives and the intended effects?

This IA considers how best to modify the legislative & regulatory framework that is currently inhibiting development of robust 'Smart Data' initiatives. The immediate objective is to accelerate progress of the existing sectoral initiatives, make it more likely that initiatives develop in other markets, and improve the quality and security of each initiative, by increasing coordination across markets. The ultimate objective is for initiatives to benefit customers, by enabling access to new and innovative services, including those that help them get better deals in the markets they participate in.

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

Option 0: BEIS neither pursuing, nor giving support to, any Smart Data related legislation. This leaves other departments to develop alternatives to legislation, independently seek primary legislation, or neither—risking further delay, decreased cross-sector interoperability and potential lock-in to suboptimal standards.

Option 1: BEIS to provide support to departments to independently develop their own alternatives to legislation or primary legislation—risking delay, regulatory duplication & lesser legislative quality.

Option 2 [preferred]: Extension of primary legislation beyond the existing powers to enable robust Smart Data initiatives – mitigating the limitations of Option 1, but potentially risking departments not exercising powers.

Option 3: Extension, but also including a legislative "sunset clause" to speed implementation.

Will the policy be reviewed? N/A If applicable, set review date: N/A

| | | | | |
|---|--------------|-----------------------|---------------------------|--------------|
| Does implementation go beyond minimum EU requirements? | | N/A | | |
| Is this measure likely to impact on international trade and investment? | | Yes | | |
| Are any of these organisations in scope? | <u>Micro</u> | <u>Small</u> | <u>Medium</u> | <u>Large</u> |
| What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent): | | Traded: N/A | Non-traded: N/A | |

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible:

Minister Paul Scully



Date: 08 September 2020

Summary: Analysis & Evidence

Policy Option 2

Description:

FULL ECONOMIC ASSESSMENT

| Price Base Year | PV Base Year | Time Period Years | Net Benefit (Present Value (PV)) (£m) | | |
|--|---|-------------------|--|-------------------------------|--------------------|
| | | | Low: Optional | High: Optional | Best Estimate: N/A |
| COSTS (£m) | Total Transition (Constant Price) Years | | Average Annual (excl. Transition) (Constant Price) | Total Cost (Present Value) | |
| Low | Optional | | Optional | Optiona | |
| High | Optional | | Optional | Optional | |
| Best Estimate | N/A | | N/A | N/A | |
| Description and scale of key monetised costs by ‘main affected groups’ | | | | | |
| Given this IA considers an order-making power, with no direct impacts, more detailed cost estimates are best suited for subsequent analysis, where sector-specific details will be taken into account. | | | | | |
| Other key non-monetised costs by ‘main affected groups’ | | | | | |
| Accruing not with this proposed legislation, but when the powers are enacted through secondary legislation. | | | | | |
| <ul style="list-style-type: none">• Suppliers: costs of understanding, implementation, and ongoing compliance with regulation.• Government, suppliers or third parties: costs to fund implementation bodies and enforcement.• Accredited parties: understanding relevant regulation and application fees for ongoing accreditation. | | | | | |
| BENEFITS (£m) | Total Transition (Constant Price) Years | | Average Annual (excl. Transition) (Constant Price) | Total Benefit (Present Value) | |
| Low | Optional | | Optional | Optional | |
| High | Optional | | Optional | Optional | |
| Best Estimate | N/A | | N/A | N/A | |
| Description and scale of key monetised benefits by ‘main affected groups’ | | | | | |
| Given this IA considers an order making power, with no direct impacts, more detailed benefit estimates are best suited for subsequent analysis, where sector-specific details will be taken into account. | | | | | |
| Other key non-monetised benefits by ‘main affected groups’ | | | | | |
| Accruing not with this proposed legislation, but when the powers are enacted through secondary legislation. | | | | | |
| <ul style="list-style-type: none">• Consumers: Cost savings from either increased switching rates or avoidance of fees. (Significant, albeit uncertain, quantified benefits in this area of the magnitude of hundreds of millions)• Consumers: direct & indirect consumption benefits (significant but unquantifiable), time savings (potentially in the region of £ millions each year) and increased security.• Society: increased innovation, competition, financial allocative efficiency, trade & reduced fraud. | | | | | |
| Key assumptions/sensitivities/risks | | | | Discount rate | |
| There is risk that, if the execution of Smart Data is poor, this may: 1) hamper competition, 2) damage supplier incentives to invest in data collection, 3) harm security and 4) lead to less equal market outcomes. We consider these risks not insurmountable and we have mitigations for each. | | | | N/A | |
| The key assumption is that relevant departments implement the necessary secondary legislation to operationalise the order-making powers to which the IA’s recommended option relates. | | | | | |

BUSINESS ASSESSMENT (Option 2)

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

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Background

1. The 2019 Smart Data Review explored how to best enable 'Smart Data': instant, secure and consented sharing of data to innovative third-party providers, delivering benefits for consumers, SMEs and the economy. There are existing Smart Data initiatives in banking, finance, pensions, energy and telecoms, but these are at varying stages of development, not necessarily consistent with each other and all are facing barriers to progress.
2. As set out in the Next Steps for Smart Data publication, the government now proposes to legislate to enhance its powers to mandate industry participation in Smart Data initiatives.
3. The legislation will define what is meant by Smart Data initiatives (including, for example, some details of the types of data that should be shared and how), and create an enabling order-making power, making it possible to mandate industry participation in schemes in any sector.
4. In any given sector, participation will be mandated through secondary legislation or alternative means, which will in each case be supported by a sector-specific assessment of costs and benefits. The focus of this consultation stage IA is therefore on the impacts of the enabling power and does not include a detailed assessment of costs and benefits.

What is Smart Data?

5. 'Smart Data' refers to the secure, consented sharing of consumer and product data with third-party providers (TPPs) who can use this data to provide innovative services for consumers and SMEs. We consider this an extension of the "right to consumer data" under the General Data Protection Regulation (GDPR). The key features of Smart Data beyond conventional data portability are for the firms that hold the data to:
 - ☐ Provide data to TPPs immediately following a request from a consumer, rather than the 30 days permitted in the right to data portability
 - ☐ Share data securely via Application Programming Interfaces (APIs) and only once the TPP has verified the consumers' identity and received their express consent
 - ☐ Provide, subject to the customer's express consent, ongoing access to data between companies and TPPs, rather than a one-off transfer
 - ☐ Adhere to common or consistent technical standards, data formats and definitions to ensure interoperability and to minimise barriers for TPPs
 - ☐ Provide product and performance data, such as tariffs or geographical availability of services, in addition to customer data, if necessary, to enable innovation
6. By combining consumer data with product and performance data, and by providing a seamless and interoperable framework for data sharing, innovators will be enabled to develop new ways for consumers to benefit from their data.

Existing Smart Data initiatives

7. For Open Banking, the leading Smart Data initiative, there are numerous live and forthcoming propositions that are benefitting consumers and SMEs¹.

Open Banking and the benefits to consumers

Open Banking remains in the implementation phase, but significant benefits can already be seen. The Open Banking Implementation Entity estimates the potential annual benefit from Open Banking at £12bn for consumers, and £6bn for SMEs users.² Uses include:

Viewing multiple bank accounts in a single app: this is integrated into most high-street banking apps, but also provided by start-ups like Emma, Yolt and Money Dashboard.

Reducing the cost of short-term credit and maximising interest receivable on current account balances: 'sweeping services' such as Safety Net Credit can move money into a consumer's current account when necessary to avoid overdraft charges and out to a another account if this provides a higher return.

Simplifying everyday tasks: start-ups like Fronted and Credit Kudos streamline housing affordability checks; Monzo has removed the need to enter banking credentials when making transfers; Flux has eliminated the need for physical receipts and loyalty cards

Helping SMEs with paperwork: accountancy platforms like Xero are streamlining invoicing and expensing; start-ups like Swoop help SMEs identify appropriate providers and apply for financing.

Services targeted at those in need: for example Touco enables carers to support those needing a bit more help with their finances. Tully has helped 17,000 individuals get support from their lenders and service providers during the coronavirus crisis.³

8. Smart Data looks to extend this type of innovation to new sectors. Some key enhancements to existing services, new business models, and potential for new intermediaries we envisage being accelerated by Smart Data, are below.

Anticipated new developments facilitated by Smart Data

Utility management services that monitor a consumer's current household bills and usage and prompt them if better deals become available that match their preferences.

Using Open Banking data alongside data from other markets, for instance utilities, to help those on irregular incomes understand their likely outgoings and better plan for the future.

Bill splitting services for multiple occupancy homes, making it easier to split utilities bills.

Automatic switching services that enable consumers to set their preferences and let the service switch them automatically if a better deal appears.

¹ Best illustrated in the accompanying publication, the ODI x Fingleton One Year On report and the Open Finance CFInput publication.

² <https://www.openbanking.org.uk/wp-content/uploads/Consumer-Priorities-for-Open-Banking-report-June-2019.pdf>

³ Tully (August '20): "Tully: Homepage" Statistic

Advanced comparison tools allowing consumers to find the best deal based on factors such as historical usage, location or service quality.

Bundle Management services to help consumers understand what parts of their bundles they use, whether they are paying for elements they are not using, and the alternatives.

9. Beyond Open Banking, progress on Smart Data initiatives is already underway in other sectors, as illustrated below. Some other countries are also in the process of developing similar initiatives – with significant progress made in Australia, and in Europe following the EU's February 2020 Data Strategy.

Smart Data initiatives in regulated sectors

Open finance: the Financial Conduct Authority (FCA) committed to leading this initiative in June 2019, building on Open Banking, and covering a wider range of services (such as savings, mortgages, consumer credit, investments, and insurance). A call for input is due to close in October 2020.⁴

Pensions Dashboards (providing initially only read-only functionality): led by the Department for Work and Pensions (DWP), working closely with the Money and Pensions Service (MaPS), the Pensions Regulator (TPR) and the FCA. This initiative would enable consumers to view all their existing pension pots in one clear dashboard format. This was announced in 2016 and is included in the Pensions Bill introduced in Spring 2020.

Midata: first announced in 2011 and led by BEIS and the Office of Gas and Electricity Markets (Ofgem)⁵. This aims to enable services including faster, more accurate tariff comparisons. Policy work is ongoing, while a related initiative - Open Energy - recently launched as part of Innovate UK's Modernising Energy Data Access competition.⁶

Open Communications: proposed initiative for the telecoms sector announced in the Smart Data Review, with the potential for future legislation. As for energy this could enable easy tariff comparison and, in combination with other Smart Data initiatives, holistic money-management services. The Office of Communications (Ofcom) have led the development of the initiative, with a consultation currently live and due to close in November 2020.⁷

The scope of this Impact Assessment

10. This impact assessment considers the legislative options available to help existing, and enable forthcoming, Smart Data initiatives through mandating industry participation.
11. This includes a consideration of either extended powers beyond the existing Enterprise & Regulatory Reform Act 2013 (ERRA) powers⁸; support given to departments to individually pursue alternative regulatory means; or support for their own primary legislation. The below

⁴ FCA (December '19): ["Call for Input: Open finance"](#) Publication

⁵ Note: Ofcom's involvement in midata only started in May 2018.

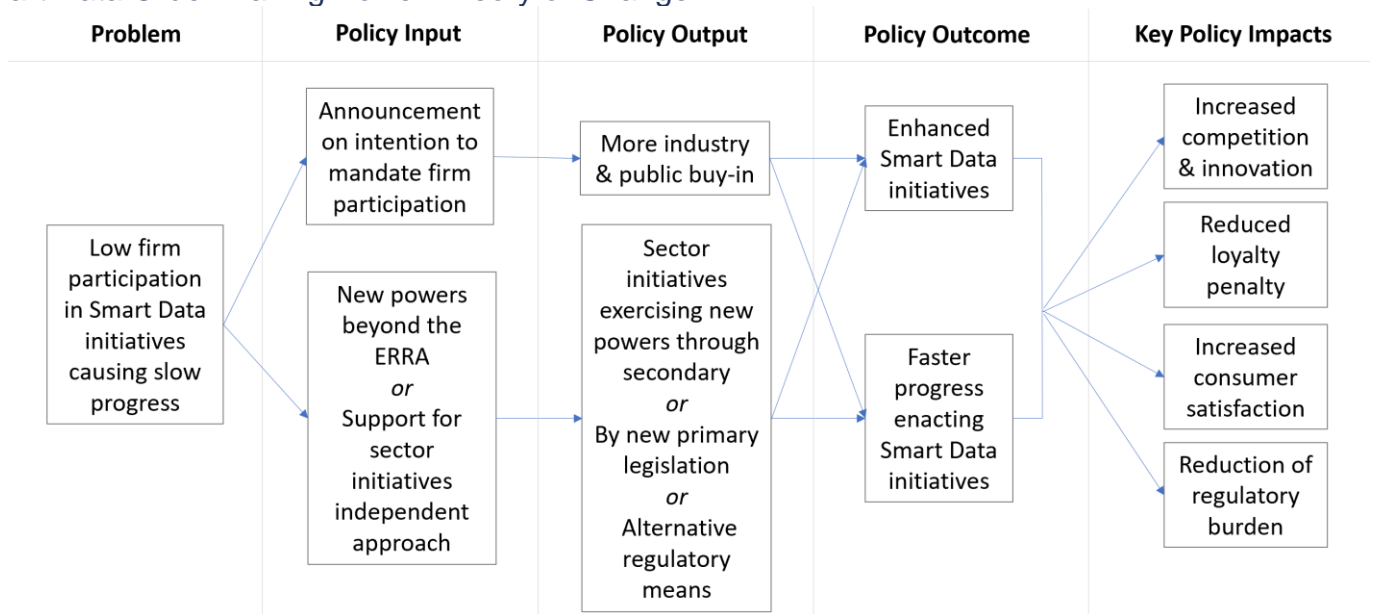
⁶ Innovate UK (May '20): ["Modernising Energy Data Access - and the winners are..."](#) Announcement

⁷ Ofcom (August '20): ["Open Communications: Enabling people to share data with innovative services"](#) Consultation

⁸ Legislation.gov (July '20): ["Enterprise and Regulatory Reform Act 2013 \(Sections 89-91\)"](#) Legislation

diagram shows the key impacts from the proposed legislative changes (however pursued) as well as related effects from the legislative announcement, even before legislation is enacted:

Smart Data Order Making Power Theory of Change



12. The proposed options in this analysis have no direct impacts in themselves. This is because they concern either

- legislative extensions beyond the ERRA, what will likely be an “enabling power”⁹, where only when exercising this power through secondary legislation will impacts on industry be felt;
- support to sector initiatives’ own legislation; or
- support for alternative regulatory means.

13. Additional impact assessments will be required alongside either secondary legislation or individual sectors’ chosen alternative means to mandate participation. Because of this, the below analysis seeks to be indicative of the scale of impacts this legislation will have on Smart Data initiatives that are planned and we expect to be enabled by this legislation.

Problem under consideration

Complex markets

14. Strong competition drives innovation, high quality and low prices. It depends on customers being engaged and making informed decisions, and firms competing fairly to win their custom. Smart Data seeks to tackle two barriers to strong competition:

- Barriers to consumers engaging:** Across markets, software has enabled businesses to derive detailed insights on customer characteristics and behaviour. Whilst these insights are used to offer new and enhanced offerings, detailed insights have also enabled new practices and offerings where businesses can obfuscate benefits and hide costs. This trend has likely contributed to increased complexity for consumers and businesses in navigating markets –

⁹ Please see section 6 of RPC (December '16): “RPC case histories” Report

furthering an asymmetry of information where suppliers can gain at the customer's expense¹⁰.

- b. **Barriers to innovation:** Innovative services, when granted access to customer data, can help consumers and SMEs make better informed decisions in increasingly complex markets, as we have seen emerge in banking.¹¹ However, in other sectors without the foundations for effective and secure data sharing, this type of innovation is hindered, meaning that customers are losing out on new and better products and services.
15. The result of the trend towards complexity is that customers increasingly need to engage with and switch within markets to avoid paying more than they need. Without innovation to help customers navigate this complexity, they either spend countless hours searching or they make uninformed decisions and pay more. This is shown in negative outcomes such as the following, seen especially but not only within regulated markets:
- a. **Ineffective competition**, for example as was the motivation for the CMA's personal current accounts order and the Government's price cap in retail energy¹². This issue may not be limited to regulated markets; in digital markets there is increasing concern that their unique characteristics lead to winner-takes-most outcomes, where status-quo competition "cannot be counted on, by itself, to solve these problems"¹³.
- b. The **"loyalty penalty"**, where – even in markets where competition is strong – long-standing customers pay a higher price for the same product or service than is paid by engaged customers. Citizens Advice in their 2018 Super-complaint estimated that across 5 essential markets there is a total loyalty penalty of around £4bn per year¹⁴. Its findings also suggest that the elderly and those on low incomes are especially at risk of paying the loyalty penalty.
- c. **Low switching rates**, where despite the evidenced benefits of switching, switching remains low across many essential markets¹⁵. For example, 41% of consumers have never switched energy suppliers¹⁶, 36% have never switched mobile phone providers¹⁷ and 70% have never switched current account¹⁸. Studies of low switching¹⁹ suggest that customers are uncertain or ignorant about the savings they could make from switching and consider the process a time-consuming hassle. Exacerbating factors behind this include behavioural economic phenomena such as the status quo bias²⁰.

¹⁰ As explored further in Fingleton (Dec '19): ["Can Open Energy replace price caps?"](#) Article

¹¹ For example, in banking sector some of the innovative use-cases are highlighted in the "Open Banking and the benefits to consumers" box above.

¹² CMA (Feb '17): ["Retail Banking Market Investigation Order 2017"](#) & BEIS (July '19): ["Victory for consumers as cap on energy tariffs to become law"](#) Press Release

¹³ Jason Furman & Digital Competition Expert Panel (March '19): ["Unlocking digital competition"](#) Report

¹⁴ CMA (December, '19): ["CMA Tackles Loyalty Penalty Charges"](#) Press Release & more recent sector specific analysis' of price differentials such as: Ofcom (July '20): ["Helping consumers get better deals - Review of pricing practices in fixed broadband"](#) Research (where the price differential paid by out-of-contract customers in Broadband and Mobile are £485m and £182m p.a respectively).

¹⁵ CMA (December, '18): ["Response to super-complaint, Annex B"](#) Report

¹⁶ BEIS (March '19): ["Public Attitudes Tracker: Wave 29"](#) Report

¹⁷ Ofcom (September '19): ["OFCOM CORE SWITCHING TRACKER 2019. 17th July to 21st August 2019"](#) Data

¹⁸ FCA (2017): ["Financial Lives Study: Retail banking data tables"](#) Data

¹⁹ Professor Amelia Fletcher for Which? (November, '16): ["The Role of Demand-Side Remedies in Driving Effective Competition"](#) Study, & Professor Catherine Waddams Price (2016): ["Empirical Evidence of Consumer Response in Regulated Markets"](#) Study

²⁰ BIT & Citizens Advice (May '16): ["Applying behavioral insights to regulated markets"](#) Report

- d. **Poor customer satisfaction**, particularly in regulated markets (10 of the bottom 15 consumer markets by measures of quality are regulated²¹; energy, water and telecoms rank among the weakest for consumer service²²). Citizens Advice research²³ highlights that increased engagement in fact lowers satisfaction even further as consumers realise the inadequacy of their choice.
- e. **Subscription traps**, where there is emerging evidence on the scale of “subscription traps” and unawareness of contract terms in free trials²⁴.

Insufficient data empowerment

- 16. A category of intervention, aimed at rectifying consumer harm and poor market competition, has been the consumer right to data. The justification behind this is based on the proposition that: if customers are better empowered to use their own data, this will lower the cost of making informed choices by enhancing the ease and effectiveness of comparison.
- 17. To enable this right, businesses under the GDPR are compelled to provide personal data in an electronically readable format. However, data requested is often not provided to common standards, in a secure, timely or ongoing way or with appropriate protections for consumers²⁵. A lack of common standards mean that customers have to follow complicated processes to access their data, expend time interpreting what this data means and working out if there are better deals elsewhere. This means the scope for effective comparison is poor, with the lack of standardisation in turn limiting the creation of innovative new services to help empower customers.
- 18. By establishing a standardised framework that enables customers to securely share their data with third parties, we believe that Smart Data will address insufficient data empowerment. For Smart Data initiatives to be successful, firms need to participate by providing relevant data in a secure, efficient and consistent manner.

Insufficient incentives or powers to deliver Smart Data

- 19. While the private sector could in principle develop effective standards for customers to share data with third parties, in key markets they have failed to materialise. This may be due to concentrated costs and dispersed benefits – i.e. whilst customers and innovative companies would benefit, the implementation costs narrowly fall upon incumbents. Therefore, because incumbents are uncertain the benefits will accrue to them, implementation is not in their best interests. We believe a regulatory intervention beyond GDPR is required to overcome this.
- 20. One regulatory option in addition to the GDPR, is to mandate industry provision of consumer data, using the powers set out in the ERA 2013. Another is for regulators to use existing

²¹ European Commission, 2016, ‘Consumer Markets Scoreboard’ Report

²² Institute of Customer Service, 2020, “UK Customer Satisfaction Index” Index

²³ Citizens Advice (November ‘16) : Citizens Advice “Against the Clock: Why more time isn’t the answer for consumers” Report

²⁴ EU Commission (September ‘17): “Misleading free trials & subscription traps for consumers in the EU” Report

²⁵ Wong & Henderson (2018): “How Portable is Portable? Exercising the GDPR’s Right to Data Portability” Study, Jeni Tennison (December ‘17): “Data portability” Blog, ODI (February ‘18): “Will GDPR and data portability support innovation?” Blog, Jason Furman & Digital Competition Expert Panel (March ‘19): “Unlocking digital competition” Report

regulatory powers (for example license conditions in energy markets). However, the scope of these options have proven too limited in many cases to enable robust Smart Data initiatives. As a result, Open Banking required a combination of a CMA order and an EU directive²⁶, and in the Pensions market, it has been necessary for the Department for Work and Pensions to pursue primary legislation.

21. This legislative gap has also delayed progress for existing Smart Data initiatives in other markets (energy, telecoms and finance) and would delay the creation of future initiatives in other markets. This means the benefits from new services enabled by Smart Data are either being delayed or not manifesting at all.

Rationale for intervention

22. Using the BIS framework for describing market failures²⁷, the central failure to which we can attribute the negative outcomes as outlined above is “**hard institutional failure**”. To be specific, there is a failure of existing regulation to enable robust Smart Data initiatives, in turn enabling easy and secure data mobility. This failure is a result of several regulatory gaps emerging between the GDPR & ERRA as detailed above – notably insufficient powers to mandate industry participation to share data appropriately.
23. Literature reviews on standards have found that government-coordinated standards have facilitated growth and innovation more commonly than they inhibited it, provided the standard was well designed²⁸. Therefore, legislation or regulatory means to support a government mandated framework to facilitate effective data portability is expected to be welfare enhancing.
24. Addressing this hard institutional failure will in turn alleviate the underlying failures of **information asymmetry**, **network failure** and **market power**.
- a. **Information asymmetry**, where customers faced with new complex offerings find it hard to make informed decisions, enabling suppliers to make gains at their expense. Without intervention, this status quo will continue as customers will lack effective data empowerment.
 - b. **Network failure**, where there is insufficient cooperation between companies to create and utilise standards. While cooperation between firms can sometimes harm consumers (eg through collusion on price²⁹), cooperation can also be helpful, for example to ensure that standards for sharing data take into account interests beyond those of the firms that currently hold the data, and to facilitate cross-sector innovation.
 - c. **Market power**, where competition is weak (for example because customers are not engaged) firms have market power that enables them to gain at the expense of customers (reduced consumer surplus) and society as a whole (deadweight loss). Increased consumer data empowerment is a pro-competition measure. It can encourage entry and expansion both by technology companies providing services using customers’ data, and by small providers (eg of energy or telecoms) who may find it easier to acquire customers with new

²⁶ Payments Service Directive II.

²⁷ BIS (July ‘14): “The case for public support of innovation at the sector, technology and challenge area levels” Research

²⁸ BIS (2010): “Economics of standardisation” Study

²⁹ We assess the risk of collusion to be low, as in regulated markets there are numerous customer types, tariffs and opportunities for providers to provide discounts in non-transparent ways. If further evidence suggests that collusion is an issue, Smart Data initiatives can take steps to mitigate this (i.e. selecting which data fields can be shared or by imposing restrictions on data retention and usage).

data services. It can make competition more effective by making consumers better informed when choosing between suppliers/offerings. And it can increase the incentive for suppliers to compete vigorously, because efficient suppliers will be rewarded by more engaged customers being more likely to choose them.

Policy objective

- 25. To accelerate and improve the development of robust Smart Data initiatives, in order to improve poor consumer outcomes which are in part caused by insufficient consumer empowerment by data.
- 26. Success will be measured through whether functional Smart Data initiatives are implemented in the affected sectors, making use of the powers set out in this legislation.

Options considered

Option 0: Do nothing

- 27. The status-quo option would be for BEIS to neither pursue, nor give support, to any further legislative changes regarding Smart Data. This would leave other departments to mandate industry involvement in Smart Data initiatives by developing alternatives to legislation, independently seeking primary legislation, or not at all.
- 28. Without legislative change, departments would either pursue Smart Data initiatives on a voluntary basis or to let the private sector independently develop standards. Whilst there is some progress on voluntary initiatives – such as the Data Transfer Project³⁰ and Open Transport³¹ – this approach risks further delay, decreased cross-sector interoperability and the potential for lock-in to suboptimal standards due to the influence of incumbents.
- 29. For initiatives looking to instate primary legislation, without BEIS support, independent legislative development will result in further delay.

Option 1: Support sector regulators to independently pursue legislation or equivalent alternatives

- 30. A lighter-touch option would be for BEIS to provide support to departments to independently develop alternatives to legislation or seek primary legislation for mandating industry participation in their Smart Data initiatives. Increased coordination by a BEIS-led regulator-government working group across sectors would likely mitigate legislative delays and lead to stronger policy development.³²
- 31. This approach would improve on Option 0, mitigating but not eliminating the problems associated with the do nothing option.
- 32. However, we could expect there to remain issues around:
 - a. **Delays** (due to the need to pursue multiple pieces of fragmented legislation),

³⁰ Data Transfer Project (July '18): "Data Transfer Project Whitepaper: Overview & Fundamentals" Paper

³¹ Intelligent Transport (Jan '20): "Open Transport Initiative launches open standard for transport interoperability" Article

³² BEIS (September '20): "Next Steps for Smart Data" Publication

- b. **Regulatory duplication** (using up valuable parliamentary time); and
- c. **Poorer quality** (cross-sectoral powers reached through coordination would allow for cross-sectoral flexibility and lower cost to business, while the pursuit of multiple pieces of distinct legislation will dilute efforts and reduce quality).
- d. **Reduced coverage** (given that this is a more piecemeal approach than option 2, enabling legislation that will help data portability across all sectors).

Option 2: Extension of primary legislation beyond the ERRA powers [Preferred]³³

33. Our preferred option would be an extension of powers beyond those that exist under the ERRA, in order to enable robust Smart Data initiatives. We expect this legislation to be an “order making power” that would enable an initiative in any given sector. The features of what this order making power might enable may include:
- a. Requiring sharing of product and pricing data, in addition to personal data (where exact data fields will be to the discretion of the department exercising the power).
 - b. Changing the focus of the legislation from data access for customers towards customers sharing data with third parties.
 - c. Including wider considerations regarding Application Programming Interface (API) governance, consumer protection and enforcement.
34. Departments could then exercise the powers through secondary legislation relating to specific sectors, a more efficient process than the development of unique primary legislation for each sector. Appropriate safeguards will however be included to ensure that each sector-specific implementation is appropriate.
35. As with option 1, this option solves the issues with voluntary schemes. It also mitigates the limitations causing **delays**, **regulatory duplication** and **poorer quality**. The risk with this option is that departments do not exercise these powers to enable new schemes, given that this is not required.

Option 3: Extension of order making powers, with expiry dates

36. A more ambitious option would be extending Option 2 to include a “sunset clause” expiry date to incentivise other departments to exercise the powers beyond the ERRA within a certain timetable. This could help mitigate the risk that, like the existing ERRA powers, they go unexercised, as respective departments would seek to exercise them before expiry.
37. This option may lead to faster progress, helping to accelerate the development of Smart Data. However, it carries increased risk that the powers will expire unexercised, putting further pressure on limited parliamentary time. Further, this pressure could risk rushed implementation leading to suboptimal outcomes.
38. Expiry of the powers may also limit the scope for this legislation to enable Smart Data initiatives in markets beyond the immediately planned regulated sectors. Expired powers would also limit any opportunity for future amendments if required.

³³ Whether the ERRA powers are extended directly or whether new primary legislation is more appropriate will be subject to the discretion of the Parliamentary Business and Legislation Committee of the Cabinet. For simplicity, in this impact assessment refers to amendment of the ERRA to distinguish from sector specific primary legislation.

Analysis

Analytical Context

39. Smart Data initiatives can be organised into three groups. Firstly, those that are operational or are expected to quickly become operational, without the influence of this proposed legislation. These are Open Banking and the Pensions Dashboard.³⁴ Secondly, markets where there is existing work underway by regulators, but the proposed legislation aims to enhance and accelerate them (finance, telecoms, and potentially energy). These are the markets where the legislation is most likely to be used in the near term. Finally, there are other markets where there is limited or no work underway but where Smart Data may be beneficial in future – for example retail, health or transport.

40. Evidence on the likely impact of Smart Data initiatives is currently limited. Key evidence on benefits and costs from Open Banking is not wholly comparable to other initiatives– largely due to the nature of it being the first Smart Data initiative and banking market specific. International comparators are at early stages of development, and while we have some limited evidence relating to energy and telecoms, from the previous midata (energy) impact assessment, evidence collection is still in progress in relation to some prospective UK initiatives (in telecoms and finance) who we expect to exercise the powers under our preferred option.

41. Moreover, the below analysis is relatively light touch, given that:

- a. This proposal is in the consultation stage and will be updated in light of any evidence submitted in response.
- b. Further detail will be required in future impact assessments alongside sector-specific secondary legislation.
- c. Impacts will vary significantly across sectors, so until sector-specific evidence collection has been completed, an overall assessment of the impact is not possible.

42. When presenting the impacts below, we have not in every case isolated the *additional* impact of our proposed options, relative to progress that might happen without this legislation (e.g. through alternative sector-specific approaches). Instead, we refer to the overall impacts of Smart Data initiatives once implemented. In actuality, we expect that the *additional* impacts of the proposed options and preferred measure (primary legislation) will be a result of:

- a. **Speeding up existing initiatives:** bringing forward the benefits, but also the costs highlighted in the next section.
- b. **Increasing legislative consistency:** increasing the overall benefit through better enabling cross-sector interoperability.
- c. **Enabling new initiatives:** also creating new benefits, but also costs as highlighted below.

³⁴ Open Banking was introduced under sector specific powers, and a separate legislative option is being pursued for Pensions Dashboard (as detailed above in the “problem under consideration” section).

43. In line with RPC guidance³⁵ on order making powers, our analytical approach focuses on case studies to illustrate the impacts the preferred option may generate.
44. We include case study impact estimates 1) relating to markets where Smart Data is happening independently of our proposed legislation – as an indicator of the scale of benefits that are possible through Smart Data initiatives; 2) estimates relating to the markets where we think the legislation is most likely to be used³⁶ – as more direct estimates of the benefit of this legislation. We don't include estimates of 3) benefits in other markets – though insofar as new initiatives in other markets later make use of the legislation, we expect the benefits will be higher.

Monetised and non-monetised benefits

Summary

45. The primary benefit to consumers from Smart Data initiatives will be the cost savings they achieve using money management tools that it makes possible, for example by being prompted to switch to cheaper products. Analysis of potential cost savings across sectors indicates significant, albeit uncertain, quantified benefits in this area. Other additional expected benefits of Smart Data initiatives are direct & indirect consumption benefits, time savings and increased security.
46. When we refer to benefits to consumers in the below, this also encompasses SMEs, who also stand to gain from cost savings from switching, consumption benefits and time savings³⁷.
47. Considering benefits to society, we can expect increased innovation, competition, financial allocative efficiency, research and trade opportunities as a result of Smart Data initiatives.
48. Across sectors with Smart Data initiatives, these benefits will vary in magnitude and there may be context-dependent benefits not highlighted here.

Detail

Consumers: Increased switching rates and avoidance of fees

49. The primary quantifiable benefit we can expect from Smart Data initiatives are the cost savings to consumers from increased switching to better suited offerings with lower fees. We can expect increased switching to occur as a result of empowered consumers better

³⁵ See also footnote 4.

³⁶ We expect regulated markets (notably prospective initiatives in telecoms and finance) to be among the first to utilise our proposed option. Though, we recognise an order making power is relevant for all sectors, where further sectors may choose to utilise this power.

³⁷ We do however recognise, that there is limited evidence the magnitude of these SME savings. So, as encouraged in the below "invitation for further engagement" section, we welcome stakeholder suggestions on this point.

understanding the benefits of offerings amidst complexity³⁸. Two key analyses have been conducted in this area that are indicative of the range of benefits that initiatives will bring.

50. First, the analysis set out in the previous midata impact assessment³⁹. In this, the aggregate benefits of increased switching in the energy market is estimated at between £20 and £140 million per annum, in the personal current account market at £38-£144m pa and in the mobile telecoms market £60-£357m pa. These figures were reached by considering a range of possible increases in the switching rate for these three markets and estimating the average benefit from switching using estimates of the 'loyalty penalty'.
51. The order of magnitude of these estimates can be seen as a lower bound indication of the switching benefits of establishing Smart Data initiatives. This is because the assumed increases in the rate of switchers (1-5%) are relatively modest and the estimates of the loyalty penalty have increased in these markets since 2012⁴⁰.
52. Second is more recent analysis from the Open Banking Implementation Entity representatives⁴¹. In this it is estimated that the aggregate benefit unlocked by Open Banking is up to £12bn a year for consumers, in addition to a further £6bn for businesses. The analysis also highlighted that customers in the specific category of "overstretched consumers"⁴² could each save as much as £287 per year or 2.5% of their annual income.
53. The estimated benefits to consumers are derived by first assuming that increased switching allows consumers to realise the CMA's estimated £3.6bn total benefit from switching their personal current account⁴³. They then also include the expected gains from increased switching within five markets⁴⁴, as a result of Open Banking services enabling consumers to identify bill savings. These switching benefits are then added to savings from factors not considered within the loyalty penalty, such as estimates of the benefits from maximising savings interest, minimising credit card interest and eliminating banking-related fees like those on foreign transactions.
54. This estimate can be seen as an upper bound indication of the benefits from new Smart Data initiatives across different sectors. Whilst focused on Open Banking, who's benefits are already accounted for and not influenced by our proposals, the analysis includes impacts on more markets than is considered for midata; it also has additional savings to what is usually

³⁸ Another potential, but we view less significant, benefit would be customers not just switching to cheaper deals, but more suited premium deals.

³⁹ BIS (2012): "[Order making power for midata](#)" IA; midata in 2012 was an overarching data mobility policy proposal including multiple sectors, not just the energy sector, where midata still carries this branding in 2020. The impact assessment accompanied the relevant primary legislation laid in the ERA 2013.

⁴⁰ CMA (Jan '20): "[CMA publishes loyalty penalty update](#)" Press Release and the Midata IA, where the assumed loyalty penalties assumptions are quoted.

⁴¹ OBIE representatives, June '19: "[Consumer Priorities for Open Banking](#)" report

⁴² From report, 18% of UK considers are in this category: "Consumers in this segment are in their family years, with an average age of 25-54 and typically employed. Over a third have mortgages but most rent. Consumers in this segment have an average of £9,000 in unsecured borrowing, but have little or no financial buffer. They are regularly or always overdrawn and many are juggling credit card debt as well. Making ends meet is challenging and most are dissatisfied with their circumstances."

⁴³ As referenced in the OBIE representative's methodology section.

⁴⁴ Five markets considered = mobile contracts, home insurance, broadband contracts and utilities – CMA (December, '19): "[CMA Tackles Loyalty Penalty Charges](#)" Press Release

considered within the loyalty penalty and finally assumes a more ambitious switching estimate for these non-current account markets (a 20% increase in the number of switchers).

55. For the final-stage IA, we expect there be more evidence gathered by existing initiatives for their secondary legislation, which we can then use to refine this estimate further. Notably, better estimates of the gains from switching, based on more detailed analysis of loyalty penalties across relevant markets and switching expectations tailored to sectors.⁴⁵ In addition, the existing analyses have either included rudimentary assumptions about, or no consideration of, suppliers changing their pricing in response to Smart Data adoption. This point should be further considered in the later analysis.

Consumers: Consumption Benefits

56. When consumers are better informed by data, they may make different consumption choices. These different choices will result in benefits not captured by loyalty penalty estimates. For example, as an indication for what this looks like in an existing initiative – analysis of the Pensions Dashboard highlights the potential recovery of up to £19.4m of “lost” pension pots⁴⁶. Or, in the above OBIE estimates for Open Banking, the optimisation of savings/credit card interest and avoidance of banking fees.

57. The above pensions and Open Banking benefits are expected to accrue whether or not we pursue means to mandate participation in Smart Data initiatives. However, they are a good illustration of the types of benefit that can be expected in other sectors as a result of our policy options accelerating other Smart Data initiatives. With more sector-specific information to be detailed, we expect more benefits to surface which can be considered in addition to these existing examples.

58. In addition to these direct consumption benefits, *indirect* benefits may manifest as a result of consumers being better informed. For example, previous analysis of the energy and retail markets⁴⁷ have highlighted the effects of better-informed decisions in increasing energy efficiency and healthier choices, leading to carbon savings and improved health outcomes. Again, these benefits are expected to be sector specific, so they will likely be captured by sector initiatives through ongoing evidence gathering or in future sectoral analysis.

Consumers: Time savings

59. We can expect Smart Data initiatives to reduce consumer effort in using their data to, for example, sign up for accounts, make comparisons or receive tailored advice. This will likely give rise to a reduction in search costs and time spent by both consumers and advisors where relevant⁴⁸. As an illustration of the magnitude of these savings, if the one million current Open Banking users save 20 minutes a year, this would be approximately a £4.5 million per annum benefit.⁴⁹ If the support to Smart Data initiatives detailed in this IA, by

⁴⁵ For example Ofcom (July '20): “Helping consumers get better deals - Review of pricing practices in fixed broadband” Research

⁴⁶ DWP (October '19): “Pension Schemes Bill 2019 Impact Assessment” IA

⁴⁷ DECC, 2014: IA “Legislation to require energy suppliers to provide key, personal information on consumers bills in a machine readable format” & BIS, 2012: IA “Order making power for midata”

⁴⁸ DWP (October '19): “Pension Schemes Bill 2019 Impact Assessment” IA

⁴⁹ Assuming £13 hourly average compensation as used by the FCA in <https://www.fca.org.uk/publications/consultation-papers/cp15-30-pension-reforms-%E2%80%93-proposed-changes-our-rules-and-guidance>

facilitating initiatives in more sectors, increased yearly time savings to half an hour and increased the coverage of savings to every adult with a smartphone, this could be approximately a £271m benefit per annum⁵⁰.

Society: Competition & Innovation

60. Smart Data is expected to increase the number of active, engaged consumers. As the midata literature review⁵¹ notes, ‘enhanced decision-making by active consumers with the confidence to engage in markets can have a significant impact on the competitiveness of the economy, by acting as a driver for long term economic growth through intensifying competition and innovation’.

61. How an intensification of **competition** as a result of Smart Data would manifest in benefits for society is twofold.

62. First, is through the *direct* benefit of a reduction of societal “deadweight loss”. When consumers make better decisions informed by data, the resulting reduction in market power not only reallocates surplus from suppliers to consumers, but society gains through previously unmet demand being addressed by improved offerings by existing or new entrants. This is elaborated on further in the midata Energy QR code analysis⁵².

63. Second, are the *indirect* benefits from the potential for reducing regulatory burden as a result of the increased competition Smart Data will spur. This has been suggested as a likely outcome by Nobel Prize winning economist Richard Thaler:

“This approach will give honest, high-quality firms an edge in their battle with competitors who use obfuscation as their chief marketing strategy. *Eventually, this approach has the potential for replacing much more intrusive and burdensome regulations that firms inevitably find ways to evade.*”⁵³

64. How **innovation** enabled by Smart Data is expected to benefit society is by enabling new intermediaries to enter the market, provide innovative services and drive productivity and growth. Looking at the experience of the most developed initiative Open Banking – the CMA report that of May 2020, there are 249 licensed third-party providers with 77 entities with at least one live customer proposition⁵⁴. Notably, at least 7 providers are specifically targeting services at vulnerable consumers.⁵⁵ The opportunity to innovate with Smart Data isn’t just limited to third parties – many banks are also implementing new features using Open Banking⁵⁶. These applications are being used, with 1.25 billion total API calls having been made by 1 million Open Banking users⁵⁷.

⁵⁰ Also assuming 79% smartphone penetration (Ofcom (Jan ‘20): “Communications Market Report – Interactive Data” Data Source), 66m UK population and 80% being 16+.

⁵¹ As referenced in BIS (2012): “Order making power for midata” IA

⁵² BIS (Jan ‘14): “QR code use in energy sector: midata programme study” IA

⁵³ Richard Thaler, as quoted in BIS (April ‘11): “Better Choices Better Deals” Announcement

⁵⁴ Open Banking (May ‘20): “Open Banking May 2020 Highlights” Report

⁵⁵ Open Banking for Good (March ‘19): “What is Open Banking for Good” Article

⁵⁶ As highlighted in the “Open Banking and the benefits to consumers” box above.

⁵⁷ OBIE (Jan ‘20): “Open Banking 2019 Highlights” Report

Consumers: Security

65. Without Smart Data initiatives providing consumers with a secure way to share data, consumers currently use less secure alternatives. “Screen scraping” is an example of this, where user credentials are shared to unaccredited third parties to log in and access data on the consumer’s behalf⁵⁸.
66. Practices like screen scraping can lead to direct harm if credentials are mishandled by third parties. As screen scraping does not have relevant controls to monitor and revoke consent, this may also lead to indirect harm, such as consumers being discriminated against or otherwise targeted without their knowledge. More broadly, normalising sharing of credentials can exacerbate the effectiveness of fraudulent practices such as “phishing”.
67. We can expect Smart Data initiatives to reduce practices like screen scraping, or to entirely displace it as has been the case with Open Banking, where the practice is planned to be outlawed⁵⁹. This will reduce time spent and costs for consumers related to identity fraud.

Society: Reduction in fraud

68. As discussed in the above security section, less secure alternatives to sharing data are being used instead of Smart Data. At present, consumers are often forced to share their data – say for purposes such as moving house, applying for a loan – by exporting their data to a digital format (.PDF, .XLS, .CSV etc) or by scanning of paper copies. As these alternatives do not have verifiable provenance, this can open the possibility of fraud.
69. In contrast, the secure APIs as used by Smart Data do not suffer from the same fraud issues. We can see emerging evidence of this in Open Banking, where verifiable bank statement data shared via APIs is a key selling point for those wanting to verify incomes or make credit decisions⁶⁰.
70. Smart Data initiatives in different sectors will likely enable similar opportunities where verifiable data can reduce fraud. We can expect secure Smart Data APIs to therefore raise the barrier to fraudsters, reducing compliance expenditure and law enforcement effort for the benefit of businesses and society.

Society: Better informed research and policymaking

71. We can expect better research and policymaking as an indirect consequence of third parties creating new (suitably anonymised) datasets with data that has been made more usable through Smart Data. Linking together datasets is a costly procedure for academia and government, in particular gaining access to cleaned and standardised data. The greater standardisation, availability and quality of data we can expect as a consequence of Smart Data initiatives will both increase the number of datasets linked by new third parties and make it easier for new datasets to be created by researchers.

⁵⁸ GoCardless (July '17): “Screen Scraping 100: Who, What, Where, When?” Blog

⁵⁹ Pinsent Masons (September '19): “PSD2: FCA gives temporary lifeline to screen scrapers” Article

⁶⁰ Credit Kudos (2020): “Business: Fraud Prevention” Website

72. One example of the research benefits that can result from Smart Data initiatives, is the collaboration between the University of Edinburgh and the Financial Data and Technology Association with their “Global Economic Observatory” project. Detailed insights into the financial impact of disruptions, such as those that accompanied COVID-19, are made possible by combining Open Banking data with data from digital accountancy software. These new detailed insights offer the possibility of more timely, accurate and data-driven policymaking by government in supporting SMEs.⁶¹

Society: Financial allocative efficiency

73. Enhanced transparency in markets as a consequence of enhanced data mobility will lead to increased allocative efficiency. One example of this, is the expected impact that Open Banking will have on improving information available to financial institutions to better score credit. The Centre for Economics and Business Research, an economic consultancy, estimates that this effect could contribute an additional £1bn to UK GDP annually.⁶²

74. We can expect allocative efficiency to be magnified as Smart Data extends beyond payment account data (as planned under Open Finance) and enables financial institutions to consider information like energy and telecommunications data (as planned under midata and Open Communications).

Society: UK technology ecosystem and trade

75. We can expect trade benefits as a result of the UK furthering its leading approach towards data portability with initiatives like Smart Data.

76. Considering direct benefits, the UK’s early adoption of Smart Data in Open Banking has been a key factor in making London second only to the Bay Area tech ecosystem in producing and attracting investment in ‘Fintech Unicorns’⁶³ (new firms who have obtained a valuation of \$1bn whilst remaining private). Smart Data provides an opportunity to further attract foreign investment into the UK tech ecosystem.

77. Considering indirect benefits, the UK setting the global precedent in data mobility regulation also makes it more likely that markets in other countries are aligned with the UK. This increased alignment can enable UK firms with Smart Data expertise to expand abroad more easily. We can see evidence of similar effects with the “Fintech Bridges” set up between the UK, Australia and Singapore.⁶⁴ Further, this may also allow UK consumers to more easily use new services from abroad as they are more easily localised to UK standards.

Monetised and non-monetised costs

Summary

⁶¹ Government Computing (June '20) “GOFCoE fintech hub in Edinburgh secures £22.5m funding from UKRI” Announcement

⁶² Trustpilot & Cebir (Feb '18): “Open Banking expected to contribute over £1 Billion annually to UK economy supporting 17,000 new jobs” Press Release

⁶³ TechNation (June '19); “Unicorn Update - London Tech Week 2019” Slidedeck

⁶⁴ AFR (June '20): “‘Fintech bridge’ to Singapore in the works to lift digital trade” Article

78. The primary costs we can expect as a result of Smart Data are the regulatory costs that fall upon suppliers of understanding, implementation and ongoing compliance with required regulation. As explained below, previous analysis estimating these costs have been limited, considering either a narrower form of data mobility than Smart Data, providing estimates without an appropriate counterfactual, or having considered just one sector.
79. In addition to this, there are likely to be costs of implementation bodies and enforcement which, depending on the funding model chosen, may fall on suppliers, third-parties or Government.
80. There will also be costs of understanding Smart Data, for those using it such as the accredited third-party providers.
81. Across Smart Data initiatives, these costs will vary in magnitude and there may be context dependent costs not highlighted here. In the evidence presented below, we describe costs in relation to the organisations on which they directly fall, while recognising that some costs to suppliers might ultimately be passed on to consumers.⁶⁵

Cost to suppliers: understanding, implementation and ongoing costs

82. In order for suppliers to participate in Smart Data initiatives, suppliers must first understand what regulation is relevant to them and formulate plans on how to implement regulatory requirements. Suppliers may also need to undertake IT or organisational changes to ensure consumers' data can be appropriately shared. And finally, suppliers must dedicate ongoing resource in order to remain compliant. We expect these to be the primary cost of Smart Data initiatives.
83. There have been three key analytical projects considering the costs to suppliers from Smart Data initiatives. Whilst each initiative's cost will be contingent on implementation timetables, their exact scope and the characteristics of the industry, these can be taken as indicative of the order of magnitude of these costs.
84. First, is the midata impact assessment analysis⁶⁶, which assesses the cost implications of its similar (though more limited) proposal for increasing data mobility. Evidence was collated, through business surveys, engagement and roundtables, on the implementation and ongoing costs of proposed data mobility initiatives. The markets considered were retail, personal current accounts, energy and mobile contracts. In aggregate, the equivalised annualised cost to business for implementation and ongoing compliance are estimated to range from £1.3 million for energy, up to £1.9 million for mobile contracts.
85. These estimates were derived assuming that data is provided on a one-off basis within the midata proposals of 40-day response times for data portability, with the analysis highlighting that instant access would substantially increase the cost. As such, considering these estimates also omit familiarisation costs for businesses, these estimates can be considered

⁶⁵ The extent to which this occurs depends in a complex way on the structure of the cost and how supply and demand respond to price. See [here](#) for a detailed discussion. It is worth noting that due to fact the majority of the costs of Smart Data are one-off, and with market power present in target industries, the incidence of these costs will fall more on data holders rather consumers at first. Any costs that are passed onto consumers are expected to be outweighed by the resultant increase in market competition.

⁶⁶ BIS (2012): "[Order making power for midata](#)" IA

as a lower bound of costs for new Smart Data initiatives, which will require instant access (and impose familiarisation costs).

86. Second, is the UK Finance analysis of the costs of Open Banking for the nine banks within scope of the CMA order⁶⁷. In contrast to the midata analysis, this directly considers an existing Smart Data initiative, taking into consideration the relevant cost of features of Smart Data, such as more immediate access to data and supplier compliance with more stringent standards. The estimate of a total cost of £1.5bn is reached through a survey of eight of the “CMA9” and extrapolating to the ninth bank. The survey takes an exhaustive view of costs, including direct costs like those concerning implementation, but also indirect costs like staff time and consultancy fees. However, the estimated implementation cost does not consider the counterfactual of what would have happened in the absence of Open Banking. This is a significant limitation, as the necessary legacy IT infrastructure upgrades that enable sharing of data would have likely been undertaken regardless in response to the trends like those towards mobile banking. This means a more accurate assessment of the costs would simply be the cost of bringing forward the eventual legacy system upgrades to meet Open Banking compliance, rather than the entire cost of the upgrades as presented. We expect isolating the total costs directly attributable to Open Banking to be at least an order of magnitude less, likely in the tens of millions.

87. Third, is the IA accompanying the Pensions Dashboard primary legislation⁶⁸. DWP’s analysis considers understanding, implementation and ongoing costs (relating to providing data, annual regulatory compliance and governance), segmented by the size of provider and contingent on the scope of data to be included in the initiative. Whilst the Pensions Dashboard is a Smart Data scheme, the fact there are thousands of suppliers, compared to the tens of suppliers in other markets, mean the costs are likely high relative to initiatives in other markets.

| Pensions Dashboard estimated costs (Extracted and summarised from IA) | | |
|--|---------------------------------------|---|
| Familiarisation | Implementation | Ongoing |
| £2m in Year One only | Between £200m and £580m over 10 years | Between £245m and £1.48bn over 10 years |

88. Considering these three-existing analyses, we expect the magnitude of the costs to suppliers will be closer to the lower midata estimate than the higher UK Finance estimate. This is because despite more strenuous requirements of Smart Data initiatives versus midata; firms in sectors with forthcoming Smart Data initiatives are, relative to banks subject to the 2017 Open Banking order, more likely to have upgraded their legacy systems. This means that the fixed implementation costs of Smart Data will likely be minimised significantly. Why we believe these legacy systems will have been updated is because of:

- Market pressure towards digitally enabled services,
- Cost savings from the move to cloud systems,
- Upgrades to facilitate working from home in response to COVID-19,
- Data protection regulation like the GDPR or other digital-related regulation, and

⁶⁷ UK Finance, referenced in BoE (June '19): “New economy, new finance, new Bank - The Bank of England’s response to the van Steenis review on the Future of Finance” Response. Details on methodology discussed during a BEIS stakeholder call with UK Finance.

⁶⁸ DWP (October '19): “Pension Schemes Bill 2019 Impact Assessment” IA

e. In anticipation of similar data mobility regulation like Smart Data.

89. This said, the exact costs to suppliers will be contingent on sector specific factors (like the number of firms, the exact scope of personal, product and pricing data included, etc) and timetable set by respective departments when mandating industry participation. Many of these details will be specified or determined in secondary legislation, alongside which further analysis will be required.

Cost to Government, suppliers or third parties: implementation bodies and enforcement

90. Depending on the design of each Smart Data initiative, an implementation body and/or funding for enforcement activity may be required. The costs to fund these activities may be borne by one of the following, or some combination of:

- a. **Suppliers**, as was the case with the CMA9 Open Banking Implementation Entity that was funded by levy.
- b. **Third parties**, through API usage or access charges.
- c. **Government**, funded through general taxation.

91. In the case of the Open Banking initiative, the implementation entity's budget from October 2016 – April 2019 was £81m, a £32m pa budget on average⁶⁹. This cost is included in the above UK Finance estimate, it is quoted here to highlight the relative cost of a coordinating body relative to the other implementation costs for suppliers.

92. For other sector initiatives, we can expect costs to be lower as result of learnings from the Open Banking experience being put into practice. It is not possible to give precise estimates before confirmation of the scope of initiatives and more sectoral evidence is gathered, however the OBIE cost can be taken as a rough order of magnitude of the costs required.

93. We expect that some of the activities undertaken by an implementation body are currently being carried out by firms and trade bodies pursuing voluntary data sharing at present. So, part of the overall cost may be considered as a transfer, rather than an outright cost.

Cost to accredited parties: understanding and fees

94. A key feature of Smart Data is the accreditation of both the third parties and data holders, who seek accreditation in order to access data and ultimately provide innovative services. The decision to become accredited will be a voluntary business expense, meaning for new firms this will not represent a net cost. However, the fact that there are firms currently providing existing services within the likely perimeter where accreditation will be required (i.e. those providing screen scraping), this will be a direct cost to business.

95. The only analysis with a comparable estimate of costs, is the implementation cost of Payment Service Directive II, part of the Open Banking⁷⁰ initiative. HM Treasury's analysis estimated that one-off accreditation application and compliance support for the 175 relevant

⁶⁹ Financial News (May '19): "The cost of open banking" Article

⁷⁰ HM Treasury (February '17): "Implementation of the revised EU PSDII" IA

credentialled providers would cost £2.9m, with annual costs to accreditation totalling £12.8m per year in their expected scenario.

96. For subsequent impact assessments, sector specific estimates contingent on the sector-relevant stringency for credentialing and expected number of third parties are expected to be available. Though, given the stringent data security required for financial data in particular, the fact that Open Banking was the first Smart Data initiative and the possibility of cross-sector accreditation – we can expect the costs per third party to be lower in other sectors.

Conclusions on costs and benefits

97. Including the example of Open Banking, the key impacts evidenced above imply net estimated benefits of multiple billions. While Open Banking was enabled through its own specific legal mechanism and will not be affected by this proposal, it shows the potential for Smart Data initiatives to provide very large benefits.
98. Looking more narrowly at just the evidence concerning energy and mobile telecoms – markets where Smart Data initiatives are most likely to be accelerated and enhanced by this legislation – we also expect a net benefit. The evidenced key impacts in these sectors suggest benefits in the order of at least tens of millions. This is in addition to benefits from time savings (also likely in the order of tens of millions) and several other substantive benefits. In addition to this, other sectors may also have their initiatives accelerated by our proposals (such as broadband, finance, retail or travel). This would result in benefits being even higher still. Costs are more difficult to estimate at this stage but may be in the region of tens of millions (and increasing in the number of markets affected).
99. The consultation and impact assessment requirements that will accompany use of our proposed option in any market will ensure that it is only used in markets where benefits are expected to exceed costs. Further, this will mean that more detailed cost and benefit estimates are collated at these points too.
100. With the evidence implying a net positive impact for initiatives overall and secondary legislation requirements ensuring this is the case at a sector level, we therefore expect a net social benefit for intervention to speed Smart Data initiative progress.

| <i>Impact</i> | Scale |
|--|--|
| Consumers: Increased switching rates and avoidance of fees [key benefit] | Upper bound estimate including Open Banking (not facilitated by the legislation) and part of the benefit present in Energy and Telecoms: £18bn pa. Lower bound estimate using cautious methodology and including, mobile telecoms and energy only: £80-500m pa. |
| Consumers: Consumption Benefits | Specific benefits not identified but expected as new services emerge. |
| Consumers: Time savings | Hypothetical illustration of saving under widespread Smart Data initiative adoption = ~£271m benefit per annum. |
| Society: Competition & Innovation | Competition benefit of reduced deadweight loss = qualitative. Innovation benefit of new intermediaries enabled (currently 249 licensed Open Banking providers) = qualitative for new initiatives. |
| Consumers: Security | Qualitative. |

| | |
|---|---|
| Society: Reduction in fraud | Qualitative. |
| Society: Better informed research and policymaking | Qualitative. |
| Society: Increase financial allocative efficiency | Quantitative for Open Banking (£1bn pa), scale qualitative for other Smart Data initiatives. |
| Society: Improved UK technology ecosystem and trade | Qualitative on foreign direct investment, given difficulty in isolating additionality. Qualitative for the benefits of more aligned international regulation |
| Cost to suppliers: understanding, implementation and ongoing costs [key cost] | Estimates have a wide range from tens of millions to low-digit billions, (though considering the significant analytical limitations of the billions figure, likely closer to tens of millions). |
| Cost to Government, suppliers or third parties: implementation bodies and enforcement | Open Banking implementation entity has a £32m pa budget. Estimates are not yet possible for other initiatives, but likely lower. |
| Cost to accredited third parties: understanding and fees | Open Banking estimate for annual cost for 175 suppliers = £12.8m pa. Cost for other initiatives not known, but likely lower. |

Risks and assumptions

101. The key **risks** regarding the proposed options are those to:

Competition

102. There is risk that Smart Data may counterintuitively harm, rather than promote competition. These risks may manifest as a result of:

- a. ***Too strenuous compliance obligations for suppliers or third parties***, leading to increased barriers to entry and reduced competition. The regulatory scope of initiatives will be determined through secondary legislation and more detailed supporting work; consultation alongside this (for example by regulators) will allow more detailed evidence gathering on this point and facilitate design that minimises this risk.
- b. ***Data mobility tilting market dynamics towards exacerbation of dominance***. Emerging research⁷¹ suggests that increased data mobility could lead to customers becoming increasingly attracted to dominant parties with existing customer relationships and the ability to better utilise insights from customer data from other providers. However, in addition to initiatives being able to tailor the scope of regulation to minimise these effects (for example not requiring portability to be bilateral, exemptions for smaller players etc) – competition law exists specifically to counter issues of dominance.
- c. ***Damaged incentives to differentiate on privacy and security***. Differentiation on the basis of privacy and security is a key axis of competition in some markets such as digital platforms.⁷² Government-specified interoperability risks a lowest-common-denominator effect, where systems that are secure but more ‘closed’, are made unsustainable as they

⁷¹ BoE (December '19): "Platform competition and incumbency advantage under heterogeneous switching cost — exploring the impact of data portability" paper, & Stratechery (May '18): "The Bill Gates line" article

⁷² FT (Oct '17): "Privacy is a competitive advantage" article, among other examples such as Signal, DuckDuckGo etc.

must interoperate with those that are less secure. Again, to minimise this risk, consideration of a proportionate regulatory scope (for example, having tiered standards or exemptions) can be made alongside further regulation.

- d. ***Lock-in to suboptimal government-specified standard.*** As raised in the problem section above, the issue of lock-in to a suboptimal standard, designed in the interests of incumbents, also applies to standards specified by government. To minimise this risk, sufficient technical talent and engagement with all stakeholders should be prioritised.

Equalities

103. The use of Smart Data by only certain groups of consumers may lead to less equal outcomes within markets. For example, those who do use new Smart Data enabled services will stand to benefit, whilst those less engaged may not benefit or could potentially suffer.
104. Having said this, the increased competition driven by Smart Data could lead to better prices for the unengaged as well as the engaged.⁷³ Moreover, those falling within the engaged group may well include vulnerable consumers, and with smartphone penetration for those in the UK aged 16+ at 79%⁷⁴, there is now widespread opportunity for inclusion of all to use Smart Data.
105. Until then, there are two key measures which can be taken to mitigate this potential risk:
- a. Analysis for previous data interventions in target Smart Data markets, such as for the midata QR codes proposal for energy bills⁷⁵, have presented demographic information to understand what groups within the relevant sector are least engaged and most at risk. This should be explored in further analysis.
 - b. To ensure engagement of these groups, the Smart Data consultation also outlined plans for a Vulnerable Consumer Challenge. This challenge will help innovators in building solutions where the gains from Smart Data can also accrue to those most in need.

Damaging supplier incentives

106. By mandating Smart Data, suppliers' incentives to invest in data collection more broadly may be damaged, as they are less able to recover their investment when the relevant data is to be shared to third parties. This risk is material, but is minimised by the fact that the majority of data in-scope of Smart Data is personal data, which will have been collected regardless. In addition, this risk is further minimised by the principle of data minimisation under the GDPR / Data Protection Act 2018, where only data that is necessary to fulfil a stated purpose should be collected.

Security

⁷³ For example, it may be the case that "The profits that businesses make on consumers later in their tenure are competed away through fierce competition to win the customer in the first place (the 'waterbed effect')" from CMA response to super complaint.

⁷⁴ Ofcom (Jan '20): "Communications Market Report – Interactive Data" Data Source

⁷⁵ BIS (Jan '14): "QR code use in energy sector: midata programme study" IA

107. As outlined in the benefits section, Smart Data is likely a net benefit to consumer data security, as Smart Data aims to displace less secure practices such as screen scraping. However, if security considerations behind the standards and redress are weak, this could give rise to the risk of decreased security of customers data. In addition, despite enhanced security requirements under accreditation, increasing the use of digital services and enabling new intermediaries could present new opportunities for security risks.

108. The key **assumptions** regarding the proposed options are:

Adoption

109. The biggest assumption underpinning the benefits of Smart Data, is that it will enable products that customers will want to use and a framework that third parties can build upon.

110. The above outlined evidence regarding the increasing use of Open Banking provides a concrete example of the demand for Smart Data in banking, with increasing uptake by customers and third-party providers.

111. In addition to this, the collective switching energy trial⁷⁶ featured a simplified switching process and greater reassurances of benefits, features that are similar to what we can expect Smart Data to provide. These features in part contributed to the “substantial impact on switching among customers who have not switched energy tariff for many years, and can be delivered at scale”. As such, the collective switching trial can be seen as indicative that Smart Data could be beneficial to even currently disengaged customers.

112. Further, the previous impact assessment for midata⁷⁷ contains surveys evidencing consumer demand for a better system for consumers to be informed by their own data. For example, 43% strongly agreed and a further 47% were in favour, of wanting easy access to personal data.

Legislative simplification

113. Implicit in the proposed options is the assumption that BEIS’ intervention will both speed up and increase the quality of Smart Data initiatives instated by other departments. BEIS to date has engaged relevant stakeholders to ensure this is the case. The Smart Data working group will ensure that this engagement continues.

Evaluation

114. We are not currently committing to evaluation. This is because i) this is a consultation-stage impact assessment, and ii) any time-bound commitment would be inappropriate given the proposals are so contingent on parliamentary time⁷⁸.

⁷⁶ Ofgem (August ‘18): “Eight times as many people get a better deal in Ofgem’s collective switch trial” Press Release

⁷⁷ Referenced in the BIS, 2012: “Order making power for midata” IA

⁷⁸ Notably when the primary legislation of the proposed option could be laid and when initiatives will be able secure legislative slots for secondary legislation.

115. Though, as indication for what approach may be taken later alongside the final IA when timelines are clearer, we can break down the Policy Objective section above into two key questions:
- Policy objective:** To *accelerate* and *improve* the development of robust Smart Data initiatives, in order to improve poor consumer outcomes which are in part caused by insufficient consumer empowerment by data.
116. How one could evaluate whether the proposed option has *accelerated* development of initiatives, is whether initiatives have exercised the proposed powers or not within the next five years.
117. Whilst a simple measure, we believe this would be proportionate due to the difficulty of establishing a counterfactual (showing how much slower respective departments would have been in obtaining their own primary legislation/alternative).
118. We see difficulty in assessing whether the proposed option has *improved* initiatives.
119. This is due to the challenge of obtaining a counterfactual. Whilst initiative outcomes can be evaluated (which we expect to fit best with secondary legislation) – we see no plausible instrument to separate to what extent initiative outcomes are a result of execution or coordinating work of the Smart Data working group from the impact of the proposed option.
120. We welcome stakeholder views on how best to evaluate.

Invitation for further engagement

121. The above is a draft impact assessment in preparation for a final draft to support the introduction of the proposed legislation. We invite comment and evidence on the potential benefits, costs and risks associated with Smart Data initiatives. We are particularly interested in evidence on costs and benefits for business including business users of initiatives. Please get in touch before 2 November 2020 via:

Email to: smartdatareview@beis.gov.uk

or

Write to:

Consumer and Competition Policy Directorate
Department for Business, Energy and Industrial Strategy
1st Floor, 1 Victoria Street
London
SW1H 0ET