Impact Assessment (IA)

Title: Regulatory Powers for Smart Data

IA number: DBT-046-24-CMRR

RPC reference number: RPC-DSIT-5358(1)

Lead department or agency: Department for Business and Trade

Date: 23rd October 2024

Stage: Final stage

Source of intervention: Domestic

Type of measure: Primary Legislation

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RPC opinion: Fit for purpose: green rated

Summary: intervention and options

Cost of preferred (or more likely) option

(in 2024 prices, millions)

Item	Cost
Total Net Present Social Value	N/Q
Business Net Present Value	N/Q
Net cost to business per year	N/Q
Business Impact Target Status	Non-Qualifying Provision

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

Multiple problems across markets exist which Smart Data could help to address, however current market incentives and powers are insufficient to deliver Smart Data alone. UK General Data Protection Regulation (GDPR) created a right to data portability but does not enable data sharing as envisaged for Smart Data, lacking strong standards and secure data sharing requirements. Many markets currently

face low levels of consumer engagement. Consumers are unable to navigate these markets easily resulting in negative outcomes such as the ‘loyalty penalty’, low switching rates and poor satisfaction. These negative outcomes are further exacerbated for vulnerable consumers who may have further inabilities to access and engage. Alongside low consumer engagement is a lack of trust and empowerment to utilise their own data in markets, increasing their cost of informed decision making. Where already sharing data, some customers are currently using less secure methods, such as ‘screen scraping’, which can lead to direct harm if this data is mishandled. Evidence also shows that in digital markets there is increasing concern that access to data is a significant barrier to entry. We believe intervention is necessary to help address the issues arising in these markets and to alleviate wider market failures.

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

The objective of our policy is to enable new, and accelerate existing, Smart Data schemes, and create a common framework to increase legislative consistency for schemes. This is intended to improve poor consumer and business outcomes, increase competition, create greater opportunities for innovation, produce time saving for users, reduce costs, increase the quality of services, improve the security of data sharing and increase the trust in data sharing mechanisms.

What policy options have been considered, including any alternatives to regulation?

Option 0: Do nothing. The Department for Business and Trade (DBT) would neither pursue, nor give support to, legislative changes regarding Smart Data.

Option 1: Pursue non-legislative alternatives.

Option 2: Support sector regulators to independently pursue legislative alternatives.

Option 3: Introduction of primary legislation, creating new “regulation-making” powers to enable Smart Data schemes to be introduced in any given sector.

Option 4: Introduction of regulation-making powers, with expiry dates.

Option 3 is preferred option. This enables faster delivery of and greater consistency between different schemes. It has the additional benefits of encouraging greater

coordination between schemes and reducing the risk of delay and regulatory duplication. Option 3 is also more efficient than the development of unique primary legislation for each sector.

Is this measure likely to impact international trade and investment?

No

Are any of these organisations in scope?

Micro: Yes

Small: Yes

Medium: Yes

Large: Yes

What is the CO_2 equivalent change in greenhouse gas emissions?

(million tonnes $C0_2$ equivalent)

Traded: Not applicable

Non-traded: Not applicable

Will the policy by reviewed?

It will be reviewed.

If applicable, set review date: 5 years post implementation

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: 

Date: 21/10/2024

Summary: analysis and evidence – policy option 3

Full economic assessment

Price base per year	PV base year	Time period	Net benefit (present value (PV)) (£million) Low	Net benefit present value (PV)) (£million) High	Net benefit present value (PV)) (£million) Best
2024	2024		Not monetised	Not monetised	Not monetised

Costs

Estimate	Total transition (constant price) Years (£million)	Average annual (excluding transition) (constant price) (£million)	Total cost (present value) (£million)
Low	Not monetised	Not monetised	Not monetised
High	Not monetised	Not monetised	Not monetised
Best estimate	Not monetised	Not monetised	Not monetised

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

Minimal direct costs would be incurred from the primary legislation; instead, direct costs would occur when the Smart Data powers are put into practice via secondary regulations. Our analysis focusses on the indirect implications of bringing forward the costs of implementing the schemes and additional years of costs when the schemes are operational. Within the Impact Assessment indicative estimates, based on Open banking costs, have been produced for the indirect costs of expediting the implementation of a telecommunications Smart Data scheme. The Impact Assessment also uses the estimated costs of a Road Fuel Open Data scheme, implementation of which is subject to the government's response to the road fuels consultation which will be published in due course, to showcase a range of costs that will depend on the scheme design at secondary legislation.

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

At the secondary regulations stage, the main affected groups facing monetised costs of Smart Data schemes themselves will be data holders and scheme administrators. Authorised Third Parties (ATPs) are also expected to face costs to participate in Smart Data schemes, however their participation will not be mandated. The main costs for scheme administrators will be to operationalise schemes and ensure adequate regulatory oversight. For data holders and ATPs this includes costs to

implement and familiarise with legislation, ongoing costs to continue compliance with regulations, which could include upgrading technical infrastructure to facilitate secure data sharing, and ongoing accreditation for ATPs. Some costs may be seen in the form of 'transfer benefits' from one group to another. This mainly affects large incumbent data holders, who may see historic advantages start to weaken as a result of increasing competition and innovation in markets.

Benefits

Estimate	Total transition (constant price) Years (£million)	Average annual (excluding transition) (constant price) (£million)	Total cost (present value) (£million)
Low	Not monetised	Not monetised	Not monetised
High	Not monetised	Not monetised	Not monetised
Best estimate	Not monetised	Not monetised	Not monetised

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

By accelerating the implementation of Smart Data schemes consumers would realise the benefits sooner. Customers, ATPs and wider society are the main groups who could see benefits from Smart Data schemes. Indicative analysis within the impact assessment has provided estimated benefits associated with speeding up the implementation of a telecommunications Smart data scheme. Modelling of the impact of legislation by Frontier indicates potential additional productivity benefits for new ATPs to be 7.8% higher than firms not making data-driven decisions using Smart Data and cost savings for SMFs over five years could be £35bn across existing banking, and new finance, energy and communications sector schemes. Other monetised benefits to customers and ATPs include switching savings, lower prices due to increased competition and fraud reduction savings.

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

Other non-monetised benefits of Smart Data schemes may be seen by customers, ATPs, wider society and data holders. Society can expect to benefit from the increasing value of the data economy, a stronger international fintech advantage and increased competition and innovation. Customers, data holders and ATPs can all expect to see the benefits from either accessing, or creating, new and innovative Smart Data tools and services across sectors. Other non-monetised benefits include money and time savings, for consumers when understanding their data and looking for better deals, and for data holders by reducing the time and resource sent dealing with fraudulent activity. Indicative estimates for these have been included throughout the IA based on specific sector context and similar interventions.

Key assumptions/sensitivities/risks

The key primary assumptions of this analysis are that the relevant departments use the regulation-making powers in policy option 3 and implement necessary secondary legislation to operationalise their Smart Data scheme. The analysis for estimating the

implications of speeding up the implementation of Smart Data schemes is assumptions-based and should be regarded as indicative.

The primary risk is that these acceleration benefits are not realised. Another risk is that implementation of schemes will be inconsistent, and the design of secondary regulation will limit the potential for coordination. Some further risks associated with Smart Data schemes themselves could include potentially worsening inequalities, reduced competition, and a lack of uptake and demand of Smart Data schemes and services.

Business case assessment (Option 3)

Costs (£million)	Benefits (£million)	Net (£million)
-	-	-

Score for Business Impact Target (qualifying provisions only)

Not applicable

Contents

Background

What is Smart Data?

1. Smart Data is the secure sharing of customer data with authorised third-party providers (ATPs),[1] upon the customer's request. These providers then use this data to provide innovative services for the consumer or business user, such as automatic switching or better account management.

2. Smart Data goes beyond the "right to data portability" under the UK General Data Protection Regulation (GDPR) by requiring data holders to:

    a. Provide data to ATPs immediately following a request from a customer, rather than the 30 days permitted in the right to data portability.

    b. Share data securely via Application Programming Interfaces (APIs), or equivalent secure methods, and only once the ATP has authenticated the customers' identity and received their consent.

    c. Provide, subject to the customer's consent and only where required for the service, ongoing access to data between data holders and ATPs rather than a one-off transfer.

    d. Adhere to common or consistent technical standards or guidelines, data formats, and definitions to ensure interoperability and to minimise barriers for ATPs.

    e. Provide product and performance data, such as tariffs or geographical availability of services, in addition to customer data to enable innovation.

3. By combining customer data with product and performance data, facilitated by an interoperable framework for data sharing, innovators will have the opportunity to develop new ways for consumers and businesses to benefit from their data.

4. Throughout this Impact Assessment (IA), we refer to innovation as one of the overarching benefits of Smart Data. When referring to innovation, we define this as the introduction of new and improved products and services brought to the market, which make use of data.

Smart Data schemes

5. Public sector-led Smart Data schemes exist at varying stages of development. Crucially, the schemes that are progressing at the quickest pace are already underpinned by a legislative mandate for industry participation:

[1] An ATP is any authorised business or organisation that a user gives permission to access their data or with which they interact to help them navigate the market, other than their data holder(s) in that market. ATPs cover a wide range of organisation types, examples of ATPS include but aren't limited to read-access user facing ATPs, write-access user facing ATPs and Technical Service providers (TSPs).

Open Banking: the most advanced and only live Smart Data scheme. It enables customers to share payment accounts data with ATPs, typically including current and credit card accounts, as well as some savings accounts. It gained momentum in 2018 because of the Payment Services Regulations, transposing the EU's Second Payment Services Directive (PSD2) in the UK and the Competition and Markets Authority's (CMA) Retail Banking Order[2] which mandated participation for the nine largest UK banks.

Open Finance: The Financial Conduct Authority (FCA) committed to lead the public debate on this scheme in June 2019, building on Open Banking and covering a wider range of services (such as savings, mortgages, consumer credit, investments, and insurance). A feedback statement to an initial call for input was published in March 2021 and the FCA committed to work with BEIS and HMT in considering the feasibility, timing and design of any future legislation relating to Open Finance. Launched in 2021, the Centre for Finance, Innovation and Technology (CFIT) announced its first project would be focused on identifying Open Finance solutions across three use cases, including SME lending. CFIT published its Open Finance Blueprint in February 2024, which recommended that a taskforce be established to prioritise the development of Open Finance. The CFIT-chaired taskforce focused on the SME lending use case, and published its findings in August 2024.

Open Communications: an equivalent scheme for the retail telecoms and pay TV markets. In July 2021 Ofcom published a feedback statement to their initial consultation, showing that most groups were supportive of the scheme, with the exception of large communications providers.[3]

Road Fuel Open Data scheme: the CMA completed a market investigation into the UK's road fuel market in July 2023 where it found that competition between fuel retailers at a national level has weakened since 2019. To counteract this lack of competition, the CMA recommended that the government implement a statutory open data scheme which would require all fuel petrol filling stations in the UK to share their prices in an open and real time basis. This would increase price transparency for drivers, allowing them to easily compare prices and encourage competition between fuel retailers.

Energy: Ofgem is working on a number of related workstreams that should facilitate customers getting easier access and use of the data that firms hold about them and their energy usage[4].

Pensions Dashboard: announced in 2016 by the Department for Work and Pensions (DWP), this scheme will enable consumers to view all their existing pension pots in one clear dashboard format (providing read-only functionality initially). The Pension Schemes Act 2021[5] amends the Pensions Act 2004 to make it mandatory for pension providers and schemes to connect to pension

[2] CMA (2017): Retail Banking Order

[3] Ofcom (July 2021): Open Communications consultation feedback statement

[4] Ofgem (November 2023): Data Sharing in a Digital Future: Consumer Consent (ofgem.gov.uk)

[5] The Pensions Schemes Act 2021: Part 4 – Pensions Dashboards

dashboards. The Pensions Dashboard Regulations 2022 established requirements and a timeline to achieve this. The Money and Pensions Service[6] will be required to provide a dashboard, however this does not inhibit the creation of further dashboards. For example, data aggregation platform Envestnet | Yodlee and pension fintech The Pensions Lab have partnered to create a pensions dashboard for their employees.[7]

6. Schemes are also being developed by the private sector. For example, Open Energy[8] is developing a membership-style framework to share industry data, and Open Transport[9] has developed open standards for secure and interoperable data sharing. Engagement with both schemes has highlighted a lack of incentives for industry engagement as a likely barrier as these schemes develop.

7. Many other countries are developing similar schemes – with significant progress made in Europe. The EU is developing an economy-wide Data Governance Act[10] and Data Act[11] which aim to foster the availability of data by increasing trust in data intermediaries and strengthen data sharing across the EU and between sectors, businesses and governments. In December 2023, the EU member state ambassadors agreed on the European council's mandate for the European Health Data Space[1213] the first of nine planned sectoral data spaces underpinned by the act, which will promote better exchange and access to different types of data for individual and societal benefit. While the EU provide useful international comparators to Smart Data in the UK, there are limitations in the comparisons that can be drawn between countries due to unique regulatory landscapes within specific sectors.

8. The UK was the global lead in Open Banking and as of 2022 49 countries have implemented Open Banking, including in Brazil and Nigeria, and 31 more are in the process of developing Open Banking schemes.[14] We have an opportunity to extend this lead to other Smart Data sectors. This creates greater scope for compatibility between the UK and other countries, while UK businesses with experience in Smart Data can more easily expand internationally and strengthen the UK's global trade. Similar effects have

[6] MaPS – Pensions dashboards

[7] Open Banking Expo (January 2022): "Envestnet | Yodlee collaborates with The Pensions Lab for pensions dashboard"

[8] Icebreaker One – Open Energy

[9] Open Transport

[10] European Commission (2020): European data governance (Data Governance Act)

[11] European Commission (2021): Data Act

[12] European Council (December 2023): European Health Data Space: Council agrees its position

[13] European Commission: European Health Data Space

[14] Tania Babina, Greg Buchak, Will Gornall (2022): Customer Data Access and Fintech Entry: Early Evidence from Open Banking

been seen with 'Fintech Bridges' established between the UK with Hong Kong, China, South Korea, Australia, and Singapore[15] that intend to boost exports of Fintech services and bolster digital trade. The Kalifa Review of UK FinTech[16] recommends delivering a strong regulatory strategy and international action plan to build a leading position for UK FinTech. Smart Data can help enable this.

Smart Data use cases

9. Examples of use cases which have emerged from Open Banking can be found on the Open Banking Directory[17] and include:

Open Banking use cases

Viewing multiple bank accounts in a single app: integrated into most high-street banking apps, and also provided by start-ups like Bippit and Snoop.

Account sweeping tools to maximise interest: 'sweeping services' such as Moneybox move money in a user's accounts to products offering higher interest rates.

Support with loan application: NestEgg make it easy for people to apply and get accepted for affordable loans. In July 2021 NestEgg's decision engine reviewed over £100m loan applications. 75% of applicants were financially excluded.[18]

Simplifying everyday tasks: Ordo has removed the need to enter banking credentials to complete transactions.

Helping SMEs with financial management: start-ups, like ANNA, help SMEs manage payslips and make cash flow projections.

Financial safeguarding: Open Banking tools can be used to alert family, friends or financial professionals of unusual changes in spending that could be related to fraud against financially vulnerable people.

Automated tax payments: HMRC have introduced Open Banking-enabled tax payment options, which has been introduced to around 40 types of tax and duty payments.[19] In January 2024, ahead of the self-assessment tax deadline, £3.5bn of tax payments were made by Open Banking, with it now being the third most popular way for individuals and businesses to pay their taxes in the UK.[20]

[15] S&P Global (Oct, 2020): "UK aims to shape global fintech regulation as it bridges EU divorce"

[16] Kalifa Review (2021): "Kalifa Review of UK Fintech". Recommendations to Government from the review include prioritising Smart Data

[17] OBL: Open Banking Apps

[18] NestEgg (July 2021): "£100m of loan applications"

[19] Open Banking Excellence (May 2024): UK's Most Impactful Open Banking Use Case — A transformative change to paying taxes with HMRC

[20] Open Banking Excellence (May 2024): UK's Most Impactful Open Banking Use Case — A transformative change to paying taxes with HMRC

Cloud Accounting: Allows any business to manage basic accounting tasks, including managing cashflow or issuing invoices through a cloud-based software. Open Banking plays a key role as it gives companies the ability to connect their bank account to their chosen accounting service. A pilot study by Open Banking Implementation Entity (OBIE) found that 45% of respondents were using cloud accounting services[21] and that although cloud accounting services pre-date Open Banking, it is notable that 75% of users starting using the service after 2018.

10. Smart Data looks to enable this type of innovation in additional sectors, such as other financial services. Some key anticipated new developments in services that could be facilitated by Smart Data include:

    a. Holistic personal Financial Management platforms which improve understanding and engagement with customers' financial situations.

    b. Helping users on irregular incomes, including the almost 3,000,000 full time self-employed workers,[22] plan their finances better by using Open Banking data alongside data from other markets.

    c. Bill splitting services for Houses in Multiple Occupation (HMO), making it easier to split utilities bills for those in an estimated 500,000 HMOs.[23]

    d. Automatic switching services enabling consumers to set their preferences and automatically switch (e.g. energy providers) if a better deal appears.

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

    f. Bundle Management services to help consumers better understand their bundles and the possible alternatives.

    g. Improved and more efficient credit checks by enhancing credit information and alternative credit scoring methods (e.g., for those with a thin credit file), and identifying alternatives to high-cost credit.

Smart Data legislation

11. The Government committed in the King's Speech[24] to introduce primary legislation creating order-making powers for new Smart Data schemes to be introduced with mandated industry participation. The powers will be contained in the Data (Use and Access) Bill.

12. The key barrier this legislation aims to overcome is the lack of incentives for data holders to share data with ATPs. This is set out in more detail in subsequent sections. Both Open Finance and Open Communications will

[21] OBIE (June 2022): Executive Summary - The open banking Impact Report (June 2022) (foleon.com)

[22] ONS (Accessed August 2024): "LFS: Self-employed: Full-time: UK: All: Thousands: SA"

[23] House of Commons (September 2019): "Houses in Multiple Occupation (HMOs) England and Wales"

[24] Gov.uk (July 2024): "King's Speech 2024 background briefing notes" Publication

likely require legislation that enables government to mandate participation in their sector.

13. There are existing statutory powers under the Enterprise and Regulatory Reform Act 2013 (ERRA) which could be used to mandate that firms participate in sharing consumer data.[25] However we do not consider these powers enough to deliver the full benefits – and safeguards - we consider necessary. For example, existing powers do not include the sharing of product data, or sufficient safeguards to protect consumers and businesses.

14. The Smart Data powers could be used via sector specific secondary regulations made by the relevant Secretary of State or the Treasury, for example the Treasury would lead on Open Finance and The Department for Science, Innovation and Technology (DSIT) Secretary of State for Open Communications.

15. There will be minimal direct costs or benefits from the introduction of primary legislation, however the impacts that will occur at secondary stage when a scheme is created cannot be accurately appraised at this stage due to several uncertainties.

16. Policy decisions for individual Smart Data schemes will not be made until the secondary legislation stage, and there are many uncertainties surrounding the scale of both costs and benefits. For example, it is currently unknown which, and how many data holders will be in scope of each scheme, and how many customers they have. The scope of data for each scheme is also unknown until further policy decisions are made, including details on how many products and services this data relates to. There is also uncertainty regarding the timing of any use of powers.

17. Evidence is limited, and the impacts of Open Banking are not wholly comparable to other schemes. It is the first of its kind, banking specific and also underpinned by European legislation and a CMA order, rather than primary legislation. International comparators are also limited in their applicability due to varying economic and regulatory context.

18. As the benefits and costs from Smart Data schemes will vary in magnitude and accrue across varying timescales and markets, it has not been possible to make an overall estimated annual net direct cost or benefit. Indicative analysis has been produced though to indicate the potential implications of speeding up the implementation of Smart Data schemes through the primary legislation.

19. In line with Regulatory Policy Committee (RPC) case history guidance for primary legislation,[26] where a department is unable to provide a robust

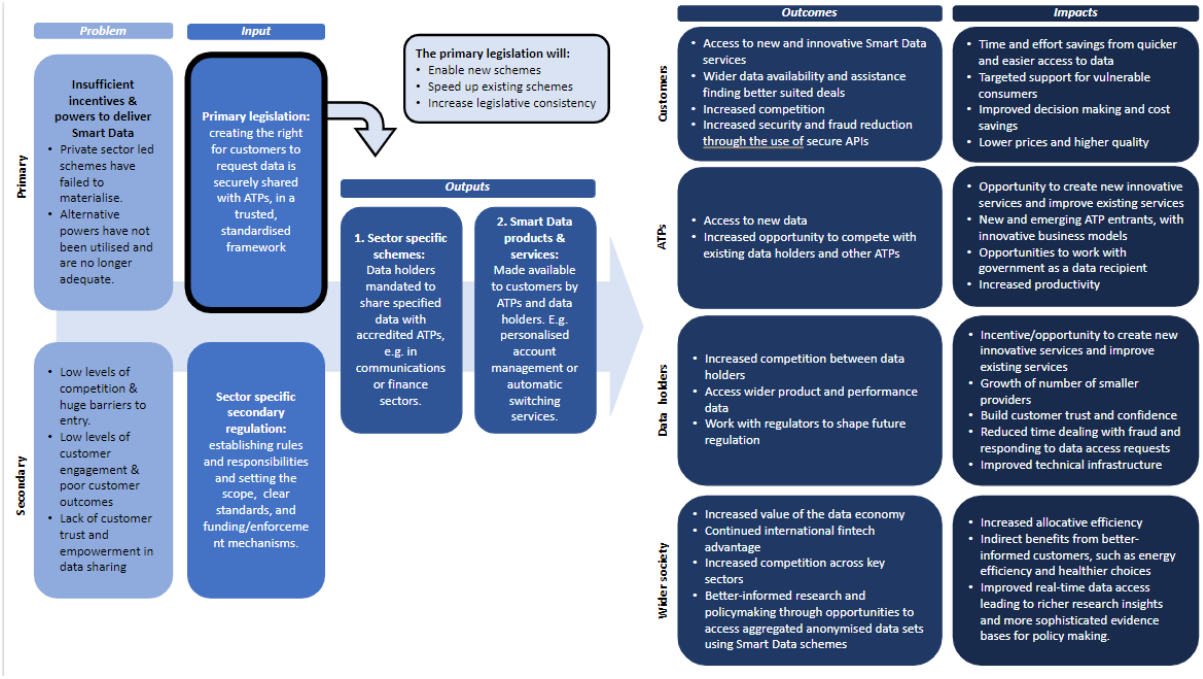
[25] Enterprise and Regulatory Reform Act 2013: Sections 89-91

[26] RPC (August 2019): "RPC case histories – primary legislation IAs, August 2019"

assessment for validation until the secondary legislation stage, for reasons explained above, this impact assessment focusses on providing an indicative appraisal of impacts that could arise from future schemes. This analysis builds on the experience of Open Banking (as the only live Smart Data scheme) and evidence from other sectors (finance, communications, energy, and pensions). Detailed sector specific assessments of costs and benefits will be required at the secondary stage.

20. There could be benefits and potential for a Smart Data scheme in any sector where a user is unable to easily use data held about themselves. There would be scope for the Smart Data powers to be used in wider sectors in future and they will not be narrowed for use in specific, named sectors.

Theory of change



The theory of change above explains how primary and secondary Smart Data legislation can lead to certain impacts and outcomes. This is summarised:

Without primary legislation there is insufficient incentives and powers to deliver Smart Data. Primary legislation creates the right for customers to request data is securely shared with ATPs in a trusted, standardised framework.

a. For sectors experiencing low levels of competition and large barriers to entry, low levels of customer engagement and poor customer outcomes and lack of customer trust, Secretaries of States may choose to implement secondary regulation that establishes rules and responsibilities of a Smart Data scheme in the sector.

b. Primary and Secondary legislation lead to sector specific schemes and Smart Data products and services.

c. This leads to a variety of outcomes and incomes for different groups within Smart Data. They are:

- **i.** **Customers:** Access to new and innovative Smart Data services, assistance findings better deals, access to markets with increased competition and increased security and fraud reduction through the use of secured APIs. This could lead to: time and effort savings from quicker and easier access to data, targeted support for vulnerable consumers, improved decision making and cost savings, lower prices and higher quality services.
- **ii.** **ATPs**: Access to new data, increased opportunity to compete with existing data holders and other ATPs. This could lead to: opportunity to create new innovative services and improve existing services, new and emerging entrants with innovative business models, opportunities to work with government as a data recipient, increased productivity.
- **iii.** **Data holders**: Increased competition between data holders, access to wider product and performance data, work with regulators to shape future regulation. This could lead to incentive/opportunity to create new innovative services and improve existing services, growth of smaller providers, build customer trust and confidence, reduced time dealing with fraud, improved technical infrastructure.

iv. **Wider society**: Increased value of the data economy, continued international fintech advantage, increased competition across key sectors, better informed research and policy making through opportunities to access aggregated anonymised data sets. This can lead to increased allocative efficiency, indirect benefits from better informed customers, such as energy efficiency and healthier choices, improved real time data access.

Problem under consideration

21. Multiple problems exist across markets which Smart Data could help to address. It may not be the single solution; however, it could help alleviate the following challenges.

Primary barrier to overcome: Insufficient incentives or powers to deliver Smart Data

22. This is the key focus of the Smart Data legislation. Private sector led schemes, with clear and widely adopted standards for customers to share data with third parties, have failed to materialise in key markets. This is likely due to insufficient incentives, where customers and new market entrants would benefit, but also as implementation costs would primarily fall on incumbent data holders.

23. UK GDPR created a right to data portability, allowing individuals to obtain and reuse their personal data for their own purposes across different services. This compels businesses, when requested by a customer, to provide personal data in an electronically readable format. However, this does not enable data sharing as envisaged for Smart Data:

    a. Requested data does not have to be shared immediately (only within 30 days) and secure data sharing (such as APIs)[27] are not required.
    b. Lack of standardised formats for both the data and how it is shared. This limits consumer and ATPs ability to make effective comparisons.
    c. Onus remains on individuals to access their data and work out what it means.

24. There are alternative legislative powers that could attempt to deliver improved data sharing, such as the powers set out in ERRA 2013 or existing regulatory powers (such as licence conditions in energy markets). However, these alternatives have not been utilised and, as set out above, the ERRA powers are no longer adequate to deliver robust Smart Data schemes.

Secondary barriers to overcome

Low levels of competition

[27] Wong & Henderson (2018): "How Portable is Portable? Exercising the GDPR's Right to Data Portability", Jeni Tennison (December 2017): "Data portability", ODI (February 2018): "Will GDPR and data portability support innovation?", Jason Furman & Digital Competition Expert Panel (March 2019): "Unlocking digital competition"

25. Strong competition drives innovation, high quality, and low prices. Innovative services can help consumers and businesses make better informed decisions in increasingly complex markets. We have seen this emerge in Open Banking.[28] However, if the innovative third parties cannot access data, this limits innovation, and customers will miss out on new and improved products and services. This may also mean customers are not able to meaningfully participate in the market as a rational actor.

26. Ineffective competition was the motivation for the CMA's Retail Banking Market Investigation Order and the Government's price cap in retail energy.[29] In digital markets there is increasing concern that access to data is a huge barrier to entry and this leads to concentrated benefits for the small number of businesses with data access, highlighted in CMA's Online platforms and digital advertising interim report. It is believed that relying on pure market mechanisms for increased data sharing/access is unlikely to lead to sufficient solutions for these problems. Government intervention is necessary to address this market failure, as discussed in the Furman Review.[30]

Low levels of consumer engagement

27. Strong competition is dependent on customers being engaged and making informed decisions. Across markets, technology has enabled businesses to derive detailed insights on customer characteristics and behaviour – furthering an asymmetry of information where data holders can gain at the customers expense.[31]

28. Without innovative services to help customers navigate complex markets, many customers will either spend a lot of time searching for deals or make uninformed decisions, paying more for a service or paying for a service that is poorly suited to their needs. This is demonstrated by outcomes in regulated markets:

    a. The "***loyalty penalty***", where in 2020 28.6 million long-standing customers paid around £3.4 billion per year more than new customers across 5 essential markets[32] and in 2022 regulators found £1.3bn a year loyalty penalty for broadband, mobile and mortgages[33] Sector regulators have made progress to reduce this since the original super-complaint from Citizen's Advice in 2018. For example, the FCA and Ofcom's measures are expected to reduce the loyalty penalty by £630

[28] See 'Open Banking use cases' box above.

[29] CMA (February 2017): Retail Banking Market Investigation Order 2017" & BEIS (July 2019): "Victory for consumers as cap on energy tariffs to become law"

[30] Jason Furman & Digital Competition Expert Panel (March 2019): "Unlocking digital competition"

[31] As explored further in Fingleton (December 2019): "Can Open Energy replace price caps?"

[32] Citizens Advice (September 2020): "The loyalty penalty in essential markets: Two years since the super-complaint" – Markets include: Mobile, Broadband, Home insurance, Cash savings, and Mortgages

[33] Citizens Advice (August 2022): One-in-seven customers still paying the loyalty penalty despite cost-of-living crisis

million and £332 million respectively each year.[34] Smart Data could help reduce this further and the FCA have posed Open Finance as a potential long-term solution to the loyalty penalty and associated low consumer engagement[35] (e.g. consumers able to monitor offers available on the market and compare them against the services provided by their existing supplier).

b. ***Low switching rates***. Switching remains low across many essential markets, despite the evidenced benefits of switching. [36][37] For example, Ofcom found in 2022 that over 20 million telecommunication customers were out of their initial contract period, and were paying more for their services than they need to.[38] Citizens Advice research showed around 1 in 4 consumers found their ability to switch in an essential market to be impacted by the coronavirus lockdown.[39] Studies of low switching[40] suggest that customers are uncertain or unaware of the savings they could make from switching and consider the process time-consuming. In the energy sector, consumers can save £264 per year, by switching to a cheaper deal, once their initial contract term ends.[41]

c. ***Poor customer satisfaction,*** 10 of the worst 15 consumer markets ranked by quality are regulated;[42] energy and communications rank among the worst for consumer service.[43] Citizens Advice research[44] highlights that increased engagement lowers satisfaction even further as consumers realise the inadequacy of their choice.

29. Many of the challenges associated with market engagement are exacerbated for vulnerable consumers. Vulnerability is often multi-layered, but the FCA define a vulnerable customer as someone who, due to their personal circumstances, is especially susceptible to harm, and are often significantly less able to represent their own interests. They may have different needs and have more behavioural biases that negatively impact

[34] Citizens Advice (September 2020): "The loyalty penalty in essential markets: Two years since the super-complaint"

[35] FCA (December 2019): "Call for Input: Open Finance"

[36] CMA (December 2018): "Response to super-complaint, Annex B"

[37] BEIS (December 2021): "BEIS Public Attitudes Tracker: Autumn 2021"

[38] Ofcom (April 2022): "Are you in or out of contract?"

[39] Citizens Advice (September 2020) : "The loyalty penalty in essential markets: Two years since the super-complaint"

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

[41] Which (2021):Six reasons to switch energy supplier

[42] European Commission (2016): "Consumer Markets Scoreboard"'

[43] Institute of Customer Service, (2020): "UK Customer Satisfaction Index"

[44] Citizens Advice (November 2016):Against the clock: why more time isn't the answer for consumers

their decision making. As of May 2022, 47% of all adults in the UK showed 1 or more characteristics of vulnerability.[45]

30. Research on vulnerable consumers highlights that a consumer's ability to make simple calculations is lower than assumed or accounted for. For example, low-income households were found to pay a 'poverty premium' of £430 more for essentials like energy, credit and insurance.[46] Consumers who are digitally excluded, such as the elderly, may also experience the 'poverty premium' due to their inability to access and engage with the market effectively. Citizens advice for debt help found that those with the lowest incomes still spend almost double the proportion of their income on telecoms than the highest earners[47].

31. Department for Business and Trade (DBT) commissioned Savanta to complete research that focused on how to design and create inclusive Smart Data schemes, with a focus on including vulnerable consumers. This research produced a set of design principles to mitigate the barriers to inclusion that should be considered in the development of future Smart Data schemes.[48]

Customer trust and empowerment

32. If customers are better empowered to use and share their own data, the cost of making informed choices is lowered. This is achieved by enhancing the ease and effectiveness by which consumers can compare different products and services and receive new data-driven insights into their own preferences. Ofgem research into the use of price comparison websites found that consumers have to manually enter their energy usage data - many did not have the correct data or know where to find it, meaning some resorted to estimates while others stopped using the service entirely.[49]

33. A lack of trust can be a significant barrier to data sharing, as highlighted in research completed by the Centre for Data Ethics and Innovation[50]. A survey[51] of transport organisations by Frontier Economics found that risks around transport data being breached and used maliciously was the main reason for not sharing data among industry respondents.[52] Lack of clarity on the data that will be shared and how it will be used could stop customers from using a service. In 2020 Ofcom found that consumers believe the most important factor when using a price comparison website (PCW) is that their

[45] FCA (July 2023): Financial Lives 2022 survey: insights on vulnerability and financial resilience relevant to the rising cost of living

[46] Fair By Design (Nov 2022):Why the poverty premium matters for local economies

[47] Citizens Advice (August 2022): The loyalty penalty: 4 years on

[48] DBT (July 2023): Design principles for inclusive Smart Data schemes research

[49] Ofgem (October 2020): "Midata Discovery and Proof of Concept User Research Findings"

[50] CDEI (July 2023): CDEI and DBT smart data research - GOV.UK (www.gov.uk)

[51] Transport Systems Catapult (2017): "Increasing access to data across the economy – Annex A"

[52] Frontier Economics commissioned by DCMS (March 2021): "Increasing access to data across the economy"

personal information is protected, with 35% of people surveyed unsure on the protection the PCW would provide. The majority of customers said they would not or were unsure about sharing personal details with third-party services. This includes 68% for sharing full home address, and 70% for sharing where their phone had been used.[53]

34. However, the use of apps and FinTech more generally is increasing. Consumer FinTech adoption amongst the digitally active population in the UK was 71% in 2019, significantly higher than 14% in 2015.[54] This ranked the UK second highest for consumer FinTech adoption out of the 9 leading global ecosystems with mature FinTech environments, above the US, Australia and Singapore.

35. A survey conducted in North America[55] also found that consumers are far more likely to share personal data now that it is a necessary part of their interactions with organisations. The Financial Services sector was found as the joint most trusted sector in protecting privacy and data, (joint with Healthcare). Communications and Energy were significantly less frequently chosen as the most trusted sector by respondents.

Security

36. Without a secure way to share data, consumers currently use less secure alternatives such as "screen scraping", where user credentials are shared to unaccredited third parties to log in and access data on the consumer's behalf.

37. There are a number of issues with screen scraping, for example:
    a. Can lead to direct harm if sensitive consumer credentials are mishandled by third parties.
    b. Does not have relevant controls to monitor and revoke consent, meaning consumers may not be able to stop sharing data.
    c. Normalises sharing of credentials, enabling fraudulent practices such as "phishing".[56]
    d. May lead to a poor customer experience, if the screen scraping technology has to be constantly adapted to extract the relevant data once again.

Rationale for intervention

38. There is a failure of existing regulation to enable robust Smart Data schemes that would enable easy and secure data portability. This failure is a result of several regulatory gaps emerging between the UK GDPR & ERRA as

[53] Ofcom (August 2020): "Open Communications 2020 survey"

[54] EY (July 2020):UK FinTech: Moving mountains and moving mainstream"

[55] McKinsey & Company (April 2020): "The consumer-data opportunity and the privacy imperative"

[56] The fraudulent practice of sending emails purporting to be from reputable companies in order to induce individuals to reveal personal information, such as passwords and credit card numbers.

detailed above – notably insufficient powers to mandate industry participation to share data.

39. This legislative gap has delayed progress for existing Smart Data schemes in the energy, communications, and finance markets and would delay the creation of future schemes in other markets. We believe a regulatory intervention extending beyond GDPR is required to overcome this.

40. As outlined above, there are currently several problems across markets leading to inefficient outcomes which Smart Data could help to address. Addressing this legislative gap will in turn help address these problems and help alleviate wider market failures.

41. We have identified four key market failures that indicate a role for government to take action:

    a) ***Information asymmetry,*** businesses hold information on customers and their available options and the details of products and services chosen by consumers. Companies can make gains at the customer's expense due to this information. As the data holders know significantly more than customers, Smart Data schemes will aim to make this information available by making data more easily accessible and user friendly for customers, which in turn will make customers more informed and will address this information asymmetry.

    b) ***Imperfect information***, where some parties have incomplete levels of information, e.g., where customers are missing information regarding what personal data businesses collect on them, and how they can access and use it themselves. Smart Data could help customers to more easily access and use their own information to make better informed decisions.

    c) ***Network failure****,* where there is insufficient cooperation between companies to create and utilise standards. While cooperation between firms can sometimes harm consumers (e.g. through collusion on price[57]), cooperation can also be helpful. Smart Data schemes could ensure standards for sharing data consider interests beyond those of the firms that currently hold the data and facilitate cross-sector innovation.

    d) ***Market power****,* in markets where competition is weak, for example due to disengaged customers or natural monopolies, firms can gain at the expense of customers and society. Enhanced consumer rights and data empowerment can encourage entry and expansion both by ATPs

[57] 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 schemes can take steps to mitigate this (i.e. selecting which data fields can be shared or by imposing restrictions on data retention and usage.)

and small service providers who may find it easier to acquire customers with new data services. It can improve competition by making customers better informed when choosing between service providers and offerings. Service providers are also incentivised to compete for the more engaged customers.

42. For Smart Data schemes to be successful, incumbent data holders need to participate by providing relevant data in a secure, efficient and consistent manner. The UK Banking industry has been subject to many reviews, including several concerning competition in retail banking. These reviews stem as far back as 2000.[58] Yet the key impetus for Open Banking was a CMA order under Part 4 (market studies and market investigations) of the Enterprise Act 2002 on competition grounds requiring banks to participate and fund an implementation body. Similarly in the pensions market it has been necessary for DWP to create new primary powers to mandate industry participation. This highlights the inadequacy of existing regulatory options to deliver Smart Data schemes.

43. Smart Data has the potential to address insufficient data empowerment and trust issues, by establishing a standardised framework that enables customers to securely share their data with third parties. Government-coordinated standards have been found to facilitate growth and innovation more commonly than they inhibited it, provided the standard was well designed.[59] Standards have led to significant economic growth in the UK.[60]

Policy objective

44. Our main policy objectives are:

    a. To enable new, and accelerate adoption of, existing Smart Data schemes;

    b. To create a common legislative framework for Smart Data schemes that will support consistency between schemes; and

    c. To encourage greater data sharing to deliver benefits for consumers, ATPs, data holders and society. In particular, improving poor consumer and business outcomes which are in part caused by insufficient consumer data empowerment.

45. Delivering these objectives will make possible a range of improvements for consumer and business which include cost, effort and time savings for customers using Smart Data products and services, lower prices and an increase in the quality of goods and services due to increased competition and innovation. Realising the objectives above will also encourage wider

[58] CMA (August 2016): "Retail banking market investigation"

[59] BIS (2010): "Economics of standardisation"

[60] BSI (2021): "BSI Standards Conference 2021 – Economic Impact of Standards"

improvements including better security and fraud reduction, and increased trust in secure data sharing mechanisms.

46. The success of this legislation will be measured against the objectives set out in the '*Monitoring and Evaluation'* section of this IA. In the first instance, an indicator for success of this legislation will be whether the Smart Data powers are used to introduce new schemes. Further objectives of the primary legislation which should be evaluated include:

    - Reduction in regulatory duplication
    - Acceleration of schemes
    - Cross-sector coordination

47. The monitoring and evaluation of Smart Data schemes themselves will be the responsibility of the departments or regulators who introduce secondary legislation for their scheme. Individual scheme outcomes and objectives can and should be measured with monitoring and evaluation plans in accompanying secondary legislation.

48. FCA and Ofcom have previously started to develop and consult on data sharing schemes.[61][62][63] We expect that this legislation will speed up the implementation of Smart Data schemes.

49. DBT led primary powers provide a consistent regulatory framework from which Smart Data schemes can be developed, and therefore should provide a clear route for Smart Data scheme implementation, making the objectives set out above realistic for this legislation.

Options considered

Option 0: Do nothing

50. The do nothing option would be for DBT 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 schemes by independently seeking primary legislation, developing alternatives to legislation, or attempting to support schemes without mandating participation.

51. Without legislative change, departments would either pursue Smart Data schemes on a voluntary basis or let the private sector independently develop standards. As a standard, industry led schemes should always be pursued in the first instance and government intervention beyond this can only be justified when a voluntary scheme has not materialised or is not achieving the desired aims for the scheme.

[61] Ofcom (July 2021): "Statement: Update on Open Communications – Enabling people to share data with innovative services"

[62] Ofcom (March 2021): Ofcom's plan of work 2021/22

[63] FCA (March 2021): "Open Finance – feedback statement"

52. Whilst there have been attempts at voluntary schemes – such as the Data Transfer Project[64] and Open Transport[65] – limited progress has been made. Taking a voluntary approach risks further delay, as there is limited incentive for data holders to share data. As data holders are likely to bear much of the cost of Smart Data, there is a high risk that no schemes will emerge on a wide scale when voluntary. We are already seeing this delay across regulated sectors:

    a. The UK Banking industry has been subject to many reviews, several concerning competition in retail banking. These reviews stem as far back as 2000.[66] Yet the key impetus for Open Banking and the subsequent innovation, was from a CMA order under Part 4 (market studies and market investigations) of the Enterprise Act 2002 on competition grounds requiring banks to participate and fund an implementation body. The CMA initiated their market investigation in 2014, before implementing their Order in 2017. The introduction of PSD2 in 2018 further enabled the use and growth of Open Banking.

    b. Based on the experience of Open Banking, with adoption only accelerating following a CMA order and mandate, it is reasonable to assume the risk that Open Finance is unlikely to emerge naturally. Moreover, there is a lack of common mutually inclusive incentives and no mechanism to hold data holders to account for delivery. A variety of industry stakeholders have informally raised similar concerns. Similarly, in the Open Finance consultation response, FCA said that a legislative framework would be needed for Open Finance to develop fully beyond the scope of the Part 4 order.[67]

        i. The Midata scheme in energy was first initiated in November 2011 and is still yet to materialise. Without government intervention, it is thought industry would not take forward the development of a voluntary scheme that affords consumers easy access to, and the sharing of, their data. Intervention is required to ensure that relevant data sets and types are in open formats, and to standards which would allow effective use by third-party providers.

        ii. In the 2021 Ofcom Open Communications consultation response, Ofcom agreed; Ofcom do not envisage that industry would introduce customer data mobility voluntarily.[68] The proposal to legislate to mandate industry involvement in communications specifically was broadly supported by respondents, with respondents agreeing that

[64] Data Transfer Project (July 2018):Data Transfer Project Overview of Fundamentals

[65] Intelligent Transport (January 2020): "Open Transport Initiative launches open standard for transport interoperability"

[66] CMA (August 2016): "Retail banking market investigation"

[67] FCA (March 2021): "Open finance – feedback statement"

[68] Ofcom (July 2021): "Update on Open Communications: Enabling people to share data with innovative services"

it is important to have a strong mechanism to incentivise industry to deliver Smart Data initiatives.

iii. Feedback to the Smart Data Working Group Spring 2021 report[69] was also broadly supportive of legislation, with one respondent saying that creating a Smart Data eco-system requires central coordination backed by legislation or regulation to mandate participation, and that legislative support can co-ordinate activity and ensure successful implementation of underlying infrastructure to achieve the benefits expected.

53. For the reasons explained above, and as can be seen by the current delays across sectors, in particular energy and banking, voluntary schemes have not been progressing due to limited incentives, and these delays would therefore likely continue for voluntary schemes. Based on this, we assume that under this option schemes would not emerge in the next 10 years.[70] It may be that schemes do not emerge at all, however we cannot presume this when the data and tech landscape may have significantly changed over the next decade.

54. A further risk is that schemes emerge without a clear, consistent framework, and lacking regulatory oversight. This can be seen in the US, where the use of standardised APIs is not mandatory. A survey by the Financial Data Exchange found that between 65 to 85 million US consumers still use services in banking that rely on unregulated and less secure data sharing methods, including screen scraping and password sharing.[71]

Option 1: Pursue non-legislative alternatives

55. If voluntary industry-led schemes were to emerge, there would still be a potential role for DBT in communicating with and coordinating across schemes.

56. A non-legislative approach would involve DBT providing some support to departments and sectors to independently develop data sharing initiatives and encourage greater collaboration. For example, DBT could seek to coordinate and collaborate across schemes in different sectors, using forums such as the Smart Data Council.[72]

57. Doing so would create valuable opportunities for different sectors to come together and share expertise. However, this approach suffers from a number of drawbacks.

58. DBT would be committing ongoing resources to delivering this option but with no clear mandate or timeline. Without the necessary incentives, there could be limited rationale for departments and sectors to prioritise their own resources and involvement.

[69] BEIS (June 2021): "Smart Data Working Group: Spring 2021 report"

[70] As discussed later in the Impact Assessment, this 10 year period has been used as a base scenario for the indicative analysis for expediting the implementation of Smart Data schemes.

[71] Financial Data Exchange (2020): Consumer Access to Financial Records

[72] DBT (April 2023):New Smart Data Council to drive forward savings for household bills

59. There is evidence of many attempts at voluntary Smart Data schemes over the years – the Data Transfer Project,[73] Midata[74] and Open Transport.[75] These attempts have faced a range of challenges and have so far not delivered data sharing. In banking, Smart Data developments were achieved through the CMA's banking market study order which mandated a common framework and led to Open banking.

60. However, the risk that initiatives fail to overcome differences in stakeholder opinion and that they fragment would be high. As this would be a purely voluntary, non-legislative approach, sectoral regulators could face challenge on the basis of not having a clear mandate to coordinate or intervene.

61. In addition, if initiatives did develop, the lack of a common legislative approach would make coordinating a range of different voluntary sectoral initiatives enormously difficult. Each sector would look to use its current legislative and regulatory frameworks which vary from sector to sector. Sectors could decide to forgo any efficiency, innovation or functionality benefits from coordinating with other initiatives and instead focus on narrow, bespoke approaches.

62. Some sectoral schemes could still emerge from a non-legislative approach. However, the opportunity for cross-sectoral data sharing and use cases would be greatly diminished as there would be few incentives within individual sectors to prioritise and secure cross-sector interoperability.

63. Given the evidence from previous initiatives and the different sectoral dynamics involved, it is unlikely this option would achieve the stated aims. It would not realise the scale and spread of data sharing schemes envisaged, and at a speed or level of efficiency that would benefit sectors and consumers.

Option 2: Support sector regulators to independently pursue regulatory alternatives

64. This approach would improve on Option 1, by supporting sector regulators to independently use their existing powers to facilitate data sharing. This would require the use of existing regulatory powers where possible, for instance, licensing requirements. This approach would provide sectors with a clear starting point and an initial regulatory framework. However, it would depend on appropriate regulatory powers already existing and being applicable.

65. DBT's role would be to support departments and regulators, encouraging greater coordination, where possible, across schemes. This option would result in a smaller range of sectors able to implement Smart Data. In addition, the following issues could still occur:

    a. ***Delays***, from pursuing multiple pieces of regulatory powers (despite being quicker than 'doing nothing').

[73] Data Transfer Project (July 2018): Data Transfer Project Overview of Fundamentals

[74] Midata (November 2011): "The midata vision of consumer empowerment"

[75] Intelligent Transport (January 2020): "Open Transport Initiative launches open standard for transport interoperability"

b. ***Regulatory duplication***, especially for firms looking to share data across a number of sectors.

c. ***Poorer quality***, the pursuit of multiple regulatory approaches may lead to contradictions and limit the potential benefits from data portability.

Option 3: Introduction of primary legislation [Preferred]

66. Our preferred option would be new "regulation-making powers" to enable Smart Data schemes to be introduced in any given sector. Key features would include:

    a. Create a right for customers to request that data holders securely share their data, along with product and performance data, with accredited ATPs

    b. Enabling secondary regulations to specify clear data standards including what data can be shared and how, who with, and how it can be used

    c. Funding mechanisms enabling the costs of schemes to be apportioned to industry players

    d. Range of enforcement mechanisms to ensure industry compliance

67. The powers could then be exercised through sector specific secondary regulations, led by the relevant department (for example DSIT for Open Communications and HMT for Open Finance). This would be more efficient than the development of unique primary legislation for each sector and is likely to minimise the delays set out under 'Do nothing', while reducing the risk of regulatory duplication and lower quality schemes.

68. DBT led primary powers provide a consistent regulatory framework from which schemes can be developed. This will encourage coordination and opportunities for interoperability. However, there remains significant flexibility in the design of schemes at the sector level. DBT expects to play a coordination role across schemes, alongside the introduction of legislation, to help mitigate this. Secondary regulations will also be subject to the affirmative procedure.

69. A risk with this option is that the powers are not exercised. However, this is considered unlikely as both Ofcom[7677] and the FCA's consultations refer to the Smart Data legislation as an option for implementation, with the FCA going further and committing to support government to consider the timing, scope, and nature of legislation.[78]

Option 4: Introduction of regulation-making powers, with expiry dates

70. A further option would be extending Option 3 to include a "sunset clause" to incentivise departments to exercise the new Smart Data powers, with a set expiry date for the powers. This could help mitigate the risk that, like the existing ERRA powers, they go unexercised.

[76] Ofcom (July 2021): "Statement: Update on Open Communications – Enabling people to share data with innovative services"

[77] Ofcom (March 2021):Ofcom's plan of work 2021/22

[78] FCA (March 2021): "Open Finance – feedback statement"

71. There is a possibility that this option may lead to faster progress, helping accelerate Smart Data. However, it also carries increased risk that the powers will expire unexercised, putting further pressure on limited parliamentary time. Additionally, this time pressure could risk rushed policy development, leading to lower quality schemes.

72. Expiry of the powers may also limit the scope for future amendments or for this legislation to enable Smart Data schemes in markets beyond the immediately planned regulated sectors.

73. In practice an expiry date would need to be sufficiently long (several years) to enable schemes to properly develop. However, that could equally provide a perverse incentive for schemes to delay development either until successful schemes emerge that can be emulated or because of other perceived priorities. The result could be that the majority of schemes defer development until near any expiry date.

Preferred option

74. Option 3 is preferred as this enables faster delivery of and greater consistency between different schemes. It has the additional benefits of reducing the risk of delay, encourage greater coordination between schemes and reduce regulatory duplication, and is more efficient than the development of unique primary legislation for each sector.

75. Our preferred option will also enable new sector and cross-sector schemes beyond the immediately planned regulated sectors to evolve and develop using the same legislative framework and expanding experience of existing sectors.

76. The assessment of alternative options above further underscores the reasons why Option 3 represents the best approach for achieving our intended policy aim:

    a. The evidence is that the absence of any intervention (Option 0) we would not see voluntary initiatives naturally emerge and successfully deliver data mobility in the foreseeable future, even in sectors with clear incentives for improving data mobility for consumers and small businesses.

    b. A dependence on voluntary, industry-led and non-legislative schemes (Option 1) would risk ongoing delays as sectors manage differing viewpoints and an unclear mandate. Experience from existing voluntary-based initiatives indicate that a clear risk that schemes fail to get off the ground and deliver any benefits.

    c. Supporting regulators to use their existing regulatory powers to increase data sharing (Option 2) would see schemes emerge in those sectors where the existing regulatory framework could facilitate it. However, it is likely that this represents a much narrower range of sectors than hoped for. In addition, the opportunities for greater cross-sector data sharing would likely diminish as narrow, bespoke sectoral schemes emerge.

    d. Finally, providing legislative powers but with a clear expiry date (Option 4) would overcome several of the challenges faced by earlier options. It

would benefit from a clear legislative mandate and support greater consistency between sectoral schemes. However, any expiry date could encourage delays in sectors either until successful schemes emerge that can be emulated or because of other competing priorities.

Analysis

77. In line with the preferred option, the subsequent analysis focusses on Option 3: Introduction of primary legislation.

Impacts at the primary legislation stage

78. The additional impacts of the primary legislation compared to the 'do nothing' scenario are expected to be:

    a. ***Speeding up the delivery of Smart Data schemes***: bringing forward the benefits and the costs highlighted in the following sections.
    b. ***Increasing legislative consistency***: increasing the overall benefit through more consistent schemes, with increased opportunity for interoperability and cross-sector innovation.
    c. ***Enabling new schemes***: creating new benefits for customers, new opportunities for businesses to innovate but also new costs for industry to operationalise the schemes.

79. We do not expect any direct impacts to businesses from the primary legislation alone. While the primary legislation mandates the participation of data holders it is the secondary legislation that makes use of the mandating. There will be no immediate implications to the data holders until the secondary legislation utilises the powers.

80. However, indirectly we expect that there will be impacts as a result of bringing forward the implementation and running of the schemes for additional time. When presenting the impacts below, we have aimed to isolate the *additional* impact of our proposed options. With this in mind we have assessed the relative impacts of the expedited implementation assumptions against a baseline implementation period.

81. As highlighted in the options section above, there have been attempts at voluntary Smart Data schemes – such as the Data Transfer Project,[79] Midata[80] and Open Transport.[81] There have also been further Smart Data developments through the CMA's banking market study order which has led to Open Banking. With the emergence of such schemes previously, we believe it would not be appropriate to assume that Smart Data projects would not happen in the absence of this primary legislation. Instead, as a base case scenario, we assume that Smart Data schemes would otherwise

[79] Data Transfer Project (July 2018): Data Transfer Project Overview of Fundamentals

[80] BIS (2011):The midata vision of consumer empowerment

[81] Intelligent Transport (January 2020): "Open Transport Initiative launches open standard for transport interoperability"

start to be implemented in 10 years. This assumption is discussed and varied in the 'Key assumptions and sensitivity for primary legislation impacts' section.

82. The Open Banking, telecommunications and road fuel industries have been used to provide an indicative assessment of the impacts of Smart Data. They showcase that scheme-specific factors and design elements cause the costs and benefits of each scheme to vary and that further analysis will need to be completed at secondary legislation level to understand exact impacts.

83. An appraisal period of 20 years is considered appropriate for analysis of Open Banking and the telecommunications sector.[82] It is considered that the longer appraisal period would better incorporate the realisation of the costs and benefits in all of the various implementation scenarios. We have used an appraisal period of 10 years for the Road Fuel Open Data scheme IA, to be consistent with the secondary legislation consultation IA, published by DESNZ. It was deemed appropriate for the appraisal period to be 10 years for this scheme as it was being assessed at secondary legislation consultation stage, and therefore the expected implementation date was more certain.

84. The choices of appraisal periods, and their impacts on the calculations, is discussed further in the 'Key assumptions and sensitivity for primary legislation impacts' section.

85. We have used the telecommunications industry example as basis for the sensitivities of how impacts of Smart Data schemes can change depending on the implementation year. This analysis provides an indicative assessment of the impacts of accelerating the implementation of Smart Data schemes against the base case scenario of these being otherwise implemented in 10 years. This analysis is assumptions based and should be viewed as a high-level indicative estimate of the implications of bringing the implementation of such a Smart Data scheme forward as a result of the primary legislation.

86. Given the indicative nature of this assessment and the uncertainty regarding the number of Smart Data schemes which could be expedited, it was thought that this assessment would be inappropriate to include in the summary sheets of the Impact Assessment, or the associated summary calculations (BIT, EANDCB, etc).

Primary legislation costs

87. As mentioned above, we expect that the impacts of the primary legislation will make the implementation of Smart Data schemes in secondary

[82] This approach is also in line with RPC guidance as the relevant costs and benefits of the option extend beyond the standard 10-year appraisal period.

legislation happen sooner. Due to this, we have estimated the possible, additional (as a result of bringing forward the implementation and running of the schemes for additional time) costs of implementing different Smart Data schemes below. In the 'secondary legislation costs' section we provide a further, qualitative assessment of the categories of costs for different affected groups that may occur when secondary legislation is in place.

88. When Smart Data schemes are introduced via secondary regulations, there will be costs incurred to operationalise the schemes successfully, and to ensure adequate regulatory oversight. These costs will initially fall on the sector regulator, or any other administrator, who will be named in the secondary regulations as responsible for specific roles. Resources to cover the costs incurred by regulators and scheme administrators will not come from central government, and instead they will be recouped from industry via charges or using the sector regulators existing levy raising mechanisms.

89. The costs incurred from Smart Data can therefore be separated into two categories:
    a. Costs incurred by regulators and scheme administrators which are then recouped from industry via charges and levies (referred to in this IA as 'implementation costs');
    b. Costs incurred directly by data holders and ATPs to participate in the Smart Data scheme

90. As discussed throughout this IA, due to several uncertainties it is not possible to isolate or predict the costs of potential future Smart Data schemes. The full impacts of future Smart Data schemes would be detailed and analysed when these specific schemes are introduced in secondary legislation.

91. The telecommunication sector and Open Banking estimates use the Open Banking scheme as a basis. The Road Fuel scheme analysis uses the bottom-up approach used in the Road Fuel Open Data scheme IA. We would expect the 'implementation costs' for future schemes to be lower than those incurred by Open Banking as a result of technical differences between schemes, and lessons from Open Banking[83].

Open Banking

92. BEIS conducted a small survey to collect more evidence on the costs of Open Banking, the first mandated data sharing scheme, and how these would relate to the costs of other schemes. Specifically, questions were asked in relation to the implementation and ongoing running costs associated with Open Banking and whether the costs of Open Banking would be comparable to the costs of implementing other Smart Data

[83] Ofcom (July 2021): "Statement: Update on Open Communications: Enabling people to share data with innovative services"

schemes. This survey was run anonymously with members of the Open Banking directory. We received responses from 11 members.

93. To estimate the total Open Banking costs we used primarily the information from those who self-identified as part of the CMA9,[84] collectively these 9 banking firms account for 90% of the total current accounts in the UK.[85] We then uprated the costs that were provided by these firms to the whole current account market to provide a total cost for Open Banking[86]. These estimated costs are shown in the table below. Wider results from the survey have been included throughout this Impact Assessment to provide an indication of the costs for Smart Data schemes.

Table 1 – Estimated implementation and ongoing costs for Open Banking (2024 prices)

(2024 Prices)	Best estimate[87] Cost Scenario (£millions)	Low estimate cost scenario (£millions)	High estimate cost scenario (£millions)
Implementation	1,429	1,1258	1,715
Ongoing annual costs	125	114	135

Telecommunications Scheme:

94. To estimate the costs for a Smart Data scheme in telecommunications, we used a ratio of the Gross Value-Added for Open Banking to the Gross Value Added for telecommunications.[88] Through comparing these sectors, the applicable costs for a Smart Data scheme in telecommunications are assumed to be 49% of that for Open Banking. The assumed telecommunication implementation and ongoing costs are below.

[84] CMA9 definition

[85] When the CMA first announced the Open Banking initiative back in August 2016, nine major banks were identified and required to create open source Open Banking. These nine banks were chosen due to their large combined market share of over 90% of the UK's consumer and small business bank accounts.

[86] The Open Banking Order also applies to a limited number of lending products (loans of up to £25k) for SMEs. For this analysis personal and business current account markets have been used to provide the best representation of Open Banking.

[87] The mean of the relevant responses was used to estimate the best estimate cost scenario.

[88] ONS (May 2021): "Regional gross value added (balanced) by industry: all ITL regions" - Standard industrial classification (SIC) 64 was used as a proxy for Open Banking and SIC 61 was used as a proxy for telecommunications.

Table 2 – Assumed implementation and ongoing costs for telecommunications (2024 prices)

(2024 Prices)	Best estimate cost scenario (£millions)	Low estimate cost scenario (£millions)	High estimate cost scenario (£millions)
Implementation	698	614	837
Ongoing annual costs	61	56	66

95. The lower assumed costs for telecommunications compared to Open Banking is consistent with the survey respondents' feedback. The majority highlighted that the costs for a telecommunication Smart Data scheme would be less than those for Open Banking. Many in the sector, as included below, have highlighted that the costs for Open Communications is likely to be substantially less than for Open Banking.

96. An example is from OBIE's response to Ofcom's Open Communications consultation. They also said they believed that Open Communications would not require costly payment initiation standards or the real time information that was a necessity for Open Banking. In addition, both the OBIE and the ODI noted that costs could be minimised by utilising the OBIE's existing standards and assets rather than starting from scratch reducing the overall costs.[89]

97. BT estimated that Open Communications would cost them between £40m-£100m,[90] representing 0.19-0.47% of BT Group revenue in 2021, £21.3bn.[91] Assuming this is attributable to the six biggest telecommunications providers in the UK,[92] the total cost for the biggest telecommunications providers would be between £240m-£600m. Although this indicates that the likely Open Communications could be lower than our current estimates, as this is based on estimates from one firm, it is thought that the costs to the sector are better estimated through our current approach.

98. DSIT have said that they expect the direct cost to business of Open Communications to be lower than comparable estimates of Open Banking, for reasons as explained above including technical differences between the schemes. It is therefore considered that the indicative estimates, which are based on the Open Banking costs, represent a very high upper bound for the potential costs of Open Communications. The cost estimates included for Open Communications here purely represent indicative figures to highlight

[89] Ofcom (July 2021): "Statement: Update on Open Communications: Enabling people to share data with innovative services"

[90] DBT (July 2022): Signed 20.07.2022 - Final stage Impact Assessment – Smart Data primary legislation (publishing.service.gov.uk)

[91] BT (2021) – BT Group Annual Report 2021

[92] Statista (May 2020) – Vodafone, Sky, 3, O2, BT, and EE

the implications of the primary legislation. Full analysis of the specific scheme impacts will be provided when the relevant secondary legislation is presented.

99. As a direct result of primary legislation, it is assumed that the rollout of Smart Data schemes, such as in telecommunications sector, would be accelerated. Therefore, while the costs of the schemes would not be as a direct result of the legislation, the time preference impacts of bringing forward the costs should be attributed to the primary legislation.[93] To estimate this impact, we have assessed the cost difference between accelerated implementation scenarios (of implementation from year 3 and implementation from year 5) and the base scenario that there would be some Smart Data schemes rolled out in some form from year 10 without legislation. This base case assumption is discussed previously in the opening of the impacts section.

Table 3 – Indicative nominal costs from the implementation of telecommunications Smart Data schemes (Best estimate cost scenario - 2024 prices) (£millions)

Implementation scenarios	Total	Difference to the baseline scenario
Implementation starts in year 3	1,672	426
Implementation starts in year 5	1,550	304
Implementation starts in year 10 (baseline scenario)	1,246	-

100. For these calculations we have assumed that the implementation costs would be spread over two years and that following this implementation period the costs of running the scheme would then be incurred. In all scenarios the same costs have been used and the costs vary by the number of years that the Smart Data scheme is operational.[94] To fully assess the impact of bringing forward these costs the present value costs have been estimated.[95]

[93] Time preference is the concept where generally people prefer value now rather than later.

[94] The same costs have been assumed for all scenarios. We have not made assumptions regarding how the costs may change over time through technological or other advances.

[95] In line with The Green Book, 3.5% annual present value discount rate has been assumed.

Table 4 – Present value costs from the implementation of telecommunications Smart Data schemes (Best estimate cost scenario - 2024 prices)

Implementation scenarios	Total	Difference to the baseline scenario
Implementation starts in year 3	1,304	473
Implementation starts in year 5	1,157	326
Implementation starts in year 10 (baseline scenario)	832	-

101. As can be seen from the table above, as expected, the present value cost differences, between the expedited implementation scenarios and the base scenario, are greater than the nominal estimates. The increase between the nominal and present value costs is greater the more the implementation period is expedited.

102. The respective estimates for the low and high-cost scenarios are presented below.

Table 5 – Present value costs from the implementation of telecommunications Smart Data schemes (Low and High Smart Data scheme cost scenarios - 2024 prices)[96] (£millions)

Implementation scenarios,	Low (Difference to the baseline, 10-year implementation scenario)	High (Difference to the baseline, 10-year implementation scenario)
Implementation starts in year 3	429	528
Implementation starts in year 5	295	364

Road Fuel Open Data Scheme:

103. DESNZ have published an Impact Assessment[97] for a Road Fuel Open Data scheme alongside their consultation[98]. Within this IA they estimate the costs and benefits of a statutory open data scheme that will require all petrol filling stations (PFSs) to provide their petrol and diesel prices each time the price changes, and within 30 minutes of it changing. DESNZ estimate that all 8,365 PFSs will be in scope of the scheme.

[96] The Low and High cost scenarios used for these scenario are those included in Table 2 of this Impact Assessment.

[97] DESNZ (January 2024): Empowering drivers and boosting competition in the road fuel retail market: impact assessment

[98] DESNZ (January 2024): Empowering drivers and boosting competition in the road fuel retail market

104. DESNZ have estimated the following direct and in-direct costs of a Road Fuel Open Data scheme:

- **Business administrative costs (direct cost to business):** To comply with a road fuel open data scheme, there will likely be a small administrative burden on PFSs to provide information to government via an external organisation. The specific burden includes the time taken for an employee working at the PFS to submit fuel price and other information.
- **Familiarisation costs (direct cost to business):** PFSs will have to adhere to familiarise themselves with the statutory open data scheme and the requirements on them.
- **Increased price competition (indirect cost to business):** The businesses may be incentivised to compete on price, leading to a reduction in the price of petrol and diesel for consumers. As a result of result of PFSs competing on price to attract consumers and maintain or increase their market share, there will be an impact on the revenues of PFSs. This impact can be considered a transfer between businesses and consumers, and this transfer has been discussed in the Primary benefits section.
- **Funding of the scheme (indirect cost to business):** Funding will be required to set up, implement and run the open data scheme, specifically to cover the costs of the aggregator and the 'enforcer' role but there may also be other associated costs. Under different scheme design choices this could fall on government instead.
- **Costs of establishing a monitoring function (direct cost to Government):** Within a Road Fuel Open Data scheme, the CMA will establish a monitoring function to provide an ongoing assessment of competition in the road fuels market.
- **Costs of funding the scheme (direct cost to government):** Under a Road fuel Open Data scheme, government will need to contract an aggregator to gather fuel price and other information from PFSs and publish this information as open data in an accessible way.

105. DESNZ were able to monetise some of the costs they estimate within a Road Fuel Open Data scheme. They can be seen in Table 6. DESNZ complete their analysis with a 2019 price year, however within this IA the analysis has been uprated to 2024 prices to be comparable with the other analysis within the IA.

Table 6 – Estimated Quantified Costs (2024 prices) Over a 10-Year Appraisal Period[99]

2024 Prices	Low cost estimate (£millions)	Central cost estimate (£millions)	High cost estimate (£millions)
Business administrative costs	20.5	34.1	68.2
Familiarisation Costs	0.01	0.04	0.66
Costs of an aggregator	39.1	39.1	39.1
Increased price competition (decreased business fuel revenue)	3,071.0	9,216.2	18,442.4
Equivalised Annual Net Direct Cost to Business (EANDCB)	-	**4.0**	-

106. The analysis within the Road Fuel IA is based on industry specific evidence, instead of scaling costs from Open Banking. This is likely to be more accurate, as Open Banking data needs greater security procedures, leading to higher costs. The Road Fuel scheme has substantially lower costs than both Open Banking and the estimated costs of a telecommunications scheme. The equivalised annual net direct cost to business estimated within the IA is £4m.

107. The analysis of the costs of Open Banking, Telecommunications and Road Fuel showcase how costs will vary depending on the needs of the sector and the design of the schemes. This is why analysis has been completed to present estimates of individual schemes separately, as the total costs will depend on the sectors involved and scheme design at secondary legislation level.

Primary legislation benefits

108. DBT has also modelled the acceleration of benefits which could emerge because of Smart Data legislation. As a result of the Smart Data legislation, it is assumed that there would now be additional years where the benefits of Smart Data are realised.

[99] DESNZ (January 2024): Road fuel retail market consultation: impact assessment (publishing.service.gov.uk)

109. Greater productivity and competition benefits enabled by personal data mobility have been estimated to increase UK GDP by £35bn, which is 1.3% of GDP. [100,101,102] This figure, as reported by Ctrl-Shift, has been quantified by aggregating the estimated value of data mobility for a wide range of sectors.[103] For this analysis we have assumed that the benefits are spread evenly across the economy and therefore we have used this estimated annual GDP uplift as a basis for these benefit calculations.

110. We expect that the impacts of the primary legislation will indirectly bring forward the implementation of Smart Data schemes in secondary legislation. Due to this, we have estimated the possible, additional (as a result of bringing forward the implementation and running of the schemes for additional time) benefits of implementing different Smart Data schemes below,

111. To provide an indicative estimate of the potential benefits, we have focussed on the potential benefits associated with introducing Smart Data schemes in the telecommunications sector and for a Road Fuel Open Data scheme. A further qualitative assessment of the potential benefits of implementing a Smart Data scheme in secondary legislation is set out in more detail in the 'secondary legislation benefits' section.

Telecommunications:

112. In 2019, the telecommunications sector accounted for around 1.8% of the total general value added in the UK.[104] From this we can assume an annual benefit of £618m, at full rollout of Smart Data schemes that facilitate greater personal data mobility.

113. We do not consider that these benefits will be fully realised immediately after implementation of the schemes, which as discussed in the section above is assumed to progress over 2 years. We have therefore made conservative estimates of the benefits growth following implementation

[100] Ctrl-Shift (2018):Data Mobility £27.8bn based on 2017 GDP estimates. The GDP estimates have been uprated to 2024 prices. The economic estimates were developed using a GDP wide modelling approach, as such the accuracy of the impact on specific sectors is prone to significant discrepancies due to the differing use of and commercial and economic impact of personal data within each sector.

[101] This estimate was also sense checked against a McKinsey data mobility benefit figure. This highlighted that open financial data has the opportunity to impact GDP by 1-1.5% by 2030.

[102] This figure, as reported by Ctrl-Shift, has been quantified by estimating the value of data mobility for a wide range of sectors as a proportion of GDP, adjusting this for the impact of that sector and applying the adjusted impact rate to economy-wide GDP. This quantification for data mobility is anchored in the financial services sector.

[103] This figure is based on assumptions about impacts in: energy, water, retail, transport, accommodation, publishing, telecommunications, financial services, insurance, pensions, education, health, arts, services and household services.

[104] ONS (May 2021): "Regional gross value added (balanced) by industry: all ITL regions". 61 was used for this purpose.

based on the growth of Open Banking users.[105] Up to year four the user percentages are based on actual user data. Following this we have assumed a flat rate of 2% of additional users are now utilising the Smart Data schemes up to year 10 where this is then assumed that the number of users will settle at this rate.[106] These usage figures are then applied to the GDP uplift estimates to estimate the benefits of Smart Data schemes in the telecommunications sector.

Table 7 – Indicative benefits realisation, following implementation, of Smart Data in telecommunications (2024 prices)

Year following implementation	1	2	3	4	5	6	7	8	9	10
Percentage of users assumed to use the Smart Data scheme[107]	1%	3%	6%	8.5%	10.5%	12.5%	14.5%	16.5%	18.5%	20.5%
Estimated Benefit (£millions)	6	19	37	53	65	77	90	102	114	127

114. As a direct result of primary legislation, it is assumed that the rollout of Smart Data schemes, such as in telecommunications, would be accelerated. Therefore, we are not assuming that all the benefits above are as a direct result of the primary legislation. Instead, the difference between the total benefits between the accelerated implementation scenarios (of implementation from year 3 and implementation from year 5) and the base scenario that there would be some Smart Data schemes rolled out in some form from year 10 without legislation.

115. As the benefits would be realised at different time horizons it is important that the present value implications are considered. The table below highlights the significant indicative present value benefits that may be realised from expediting the implementation of telecommunication Smart Data schemes.

[105] Open Banking (October 2021): The Open Banking Impact Report

[106] We have used these estimates to provide a conservative estimate of the associated benefits of Smart Data schemes. We would expect there to be exponential growth in later years following the implementation as more become aware of the process and opportunities that arise from the Smart Data schemes.

[107] The user figures have been based on the percentage of digitally enabled consumers and SMEs using Open Banking services in the years following its implementation.

Table 8 – Present value benefits from the implementation of telecommunications Smart Data schemes (2024 prices)

Implementation scenarios	Total	Difference to the baseline scenario
Implementation starts in year 3	921	600
Implementation starts in year 5	734	414
Implementation starts in year 10 (baseline scenario)	320	-

116. In addition to accelerated benefits from greater productivity and competition that could be achieved via legislation, there are risks of slow progress, duplication, and limited future interoperability that may be seen from a lack of consistency and co-ordination between schemes. This primary legislation will provide a framework by which other Smart Data schemes can operate providing consistency across the different schemes.

Road Fuel Open Data Scheme:

117. Within the Road Fuel Open Data scheme IA, DESNZ estimate the following benefits:

a. **Consumer Fuel Savings (indirect benefit to consumers):** To calculate the cost of fuel for consumers, DESNZ calculate the weekly cost of fuel by multiplying weekly petrol/diesel prices with weekly petrol/diesel consumption. This is then aggregated to estimate the annual cost of fuel. Under a Road Fuel Open Data scheme, subject to the government's response to the road fuels consultation, a price reduction is applied to the weekly prices of petrol and diesel as consumers are assumed to actively be benefiting from being able to purchase cheaper fuel through being able to see where cheaper fuel is being sold. A Road Fuel Open Data scheme could lead to cheaper price being sold through increased price competition among PFSs. Within this analysis, DESNZ have assumed that the price reduction for petrol and diesel are the same. An adjustment to the quantity of fuel consumed is also included within the analysis. This is because more fuel is consumed as it becomes cheaper, as it has an inverse relationship (the price elasticity of demand for fuel is negative).

b. **Opportunity for market innovation (indirect benefit to business):** The mandatory open data scheme benefits businesses by providing the opportunity for innovative third-party service providers to use the data which will be collected, cleaned, and published by the external organisation, to create new, or enhance existing, price comparison tools services. It can also provide the opportunity for innovative third party service providers of other services – such as navigational tools – to

enhance their existing offering by incorporating fuel price comparisons within these services.

c. **Decreased exchequer fuel receipt revenue (indirect benefit to government):** Within a road fuel open data scheme, it can be assumed that consumers purchased more fuel in response to fuel price reduction as explained above. As more fuel is consumed, this generates less revenue for government through the impacts of VAT changes charged on each litre of fuel. This is because while there is an increase in fuel duty revenue from more petrol and diesel being consumed when the price of petrol falls, this does not offset the reduction in VAT revenue the government receives on each litre of fuel sold[108]. This impact can be considered a transfer from the government to businesses (which is then subsequently transferred to consumers), and therefore has been captured in the monetisation of 'consumer fuel savings' and 'increased price competition'.

Table 9: Estimated cost of fuel to consumer with or without a Road Fuel Open Data scheme (2024 prices) over a 10-year appraisal period, broken down by fuel type[109]

2024 Prices	Low cost scenario (£bn)	Central cost scenario (£bn)	High cost scenario (£bn)
Total Net Consumer Fuel Savings (Petrol and Diesel)	**3.1**	**9.2**	**18.4**

118. The Smart Data powers will also lay the framework for secure data sharing, based on clear standards. As discussed by the Open Data Institute[110], it is important to develop and adopt good data standards to enable increased interoperability, innovation and data exchange. The cost of data sharing can be reduced through better data foundations such as supporting more efficient data sharing solutions as well as developing and using standards.[111] Evidence suggests that standards have delivered large benefits to the UK economy.[112]

[108] The VAT on each litre of fuel is levied at a percentage – i.e. 20 per cent – rather than a fixed pence per litre amount like fuel duty (which is
charged at 53.95 pence per litre). This means that if the price of fuel sold falls, there is less VAT that is collected for each litre of fuel sold

[109] DESNZ (January 2024): Road fuel retail market consultation: impact assessment (publishing.service.gov.uk)

[110] ODI: When to use open standards for data | Open Standards for Data Guidebook (theodi.org)

[111] DCMS (November 2021): "National Data Strategy Mission 1 Policy Framework: Unlocking the value of data across the economy"

[112] BSI (2021): "BSI Standards Conference 2021 – Economic Impact of Standards"

Net impacts of the primary legislation

119. This analysis has estimated the associated costs and benefits of expediting the implementation of a hypothetical Smart Data scheme in the telecommunications sector and a Road Fuel Open Data scheme, the latter subject to the government's response to the road fuels consultation. When each schemes costs and benefits are analysed together there is an overall indicative net benefit from the policy as highlighted in the tables below **(PV costs minus PV benefits – negative values indicate overall benefits).** The overall benefits are reduced when the higher cost estimates are assumed.

Table 10 – Net present value impact from the expedited implementation of telecommunication Smart Data schemes from the baseline scenario (£millions)

Implementation scenarios	Best estimate cost scenario	Low estimate cost scenario	High estimate cost scenario
Implementation starts in year 3	-128	-172	-73
Implementation starts in year 5	-88	-118	-50

120. Based on the indicative analysis, over a 20-year appraisal period, if the implementation of a telecommunications Smart Data scheme is expedited to start in year 3 or 5, as opposed to a baseline scenario of implementation from year 10, the net benefits are expected to range between £73m - £172m and £50m - £118m respectively.

121. This indicative analysis highlights the scope of the primary legislation to realise the benefits of Smart Data schemes quicker than if these were to be taken forward on a voluntary basis. As a result, the overall benefits to society as a result will increase. It cannot be estimated how many Smart Data schemes could be expedited in this regard, but this analysis provides an overview of the expected implications from faster implementation of Smart Data schemes compared to a baseline assumption that these would otherwise be implemented in 10 years.

Table 11 – Net present value impact from the expected implementation of a road fuel Open Data scheme (£millions) over the 10-year Appraisal period[113] (2024 prices)

2024 Prices	Low cost scenario (£millions)	Central cost scenario (£millions)	High cost scenario (£millions)
Net Present Social Value	-59.7	-73.3	-108.0

[113] DESNZ (January 2024): Road fuel retail market consultation: impact assessment (publishing.service.gov.uk)

122. Based on DESNZ's analysis, over a 10-year appraisal period the net benefits of a road fuel Open Data scheme range between £41.7m - £90m.

Key assumptions and sensitivity for primary legislation impacts

123. A series of assumptions have been used to provide an indicative quantification of the expected implications of this primary legislation. **It is important to note that detailed analysis of the impacts for specific Smart Data schemes will be produced when secondary legislation is introduced.** The main assumptions and their impact to the indicative estimates are discussed below.

Costs

124. The costs of Open Banking have been estimated and applied, in a scaled way, to the telecommunications sector. Through the BEIS led survey, most respondents highlighted that they believed the costs of a telecommunications Smart Data scheme would be lower than comparable estimates for Open Banking. Open Communications is unlikely to require payment initiation standards or the same degree of dynamic real-time data as required by Open Banking, as highlighted by OBIE.[114] Furthermore, the cost estimates used for Open Banking included IT upgrades which may have been implemented outside of the Open Banking scheme.

125. Over the appraisal period there may be efficiencies in the implementation or ongoing costs which mean that it could be comparatively cheaper to delay the implementation of Smart Data schemes. This could be because technological advances. However, we have not attempted to apply a cost reduction to account for this eventuality. It was believed that any such assumption would be arbitrary and could likely be misleading.

126. This analysis assumes that the respective Open Banking costs would be comparable to Smart Data schemes in other sectors, relative to the size of the markets themselves. For this analysis the comparable sector scales have been assumed through Gross Value Added (GVA) sector breakdowns. Another sector size indicator that was explored for this purpose was the number of businesses through the business population estimates.[115] For the equivalent sectors, based on the total number of businesses or number of businesses with employees, for Open Banking and telecommunications this resulted in respective sector ratios of 1:0.39 or 1:0.63. As the 1:0.49 GVA ratio fell firmly within this range it was seen as appropriate. However, if other ratios were to be used there would be corresponding impacts to the estimated implementation and ongoing costs of the scheme.

127. To estimate the market sizes Standard Industrial Classification (SIC) codes needed to be relied upon. A general drawback of this approach is the

[114] Ofcom (August 2020): "Open Communications: Enabling people to share data with innovative services"
[115] BEIS (October 2021): "Business population estimates 2021"

consideration whether the applicable SIC sectors accurately represent the industries of interest for this analysis. Given the lack of further disaggregation of data by further subsectors this is approach has been assumed as the most appropriate proxy to use.

128. The analysis also assumes that the costs are consistent through the years. There have been no estimates regarding any potential practical or technical solutions in later years than may result in the implementation and running costs of Smart Data schemes varying over the appraisal period. It was thought that any such assumption would lead to a level of specificity that would be inappropriate for these calculations.

129. The specific costs of the Smart Data schemes will be analysed in detail when secondary legislation is introduced. The aim for this analysis was to provide an indication of the impacts of bringing forward the implementation of Smart Data schemes.

Benefits

130. Benefits are assumed to be spread consistently across the economy by the scale of the various sectors. This assumes that the Smart Data benefits that could be realised in some sectors are not disproportionate to others. This assumption may not stand in reality as some sectors could utilise Smart Data schemes to a greater extent eliciting a greater benefit in those sectors. This assumption was used to provide an indicative benefit assessment for the telecommunications.

131. Data from the number of digitally enabled consumers and SMEs using Open Banking services was used as a proxy to demonstrate the potential benefits realisation profile of other Smart Data schemes. While it is likely that Smart Data schemes will not realise their full benefits immediately after they have been implemented the profile of the benefits realisation for different schemes is uncertain. For this indicative analysis we have assumed conservatively a flat number of total user increase per year. A consistent benefits realisation rate has then been assumed from 10 years after implementation. We believe it is likely that the number of users for Smart Data schemes are likely to increase exponentially over the years due to additional products are developed and the understanding of the benefits of using Smart Data schemes are communicated. This change would have resulted in greater benefits.

132. DESNZ have published an Impact Assessment[116] for a Road Fuel Open Data scheme alongside their consultation[117]. Their estimations were informed by publicly available quantitative and qualitative evidence, including the CMA final market study report[118]. However, some data limitations meant there was a degree of uncertainty about the precise benefits for consumers from fuel savings due to the uncertainty about the pence per litre reductions in fuel that the scheme may lead to. In some occasions, assumptions were made to calculate the quantified estimates. These assumptions were based

[116] DESNZ (January 2024): Empowering drivers and boosting competition in the road fuel retail market: impact assessment

[117] DESNZ (January 2024): Empowering drivers and boosting competition in the road fuel retail market

[118] CMA (July 2023): Final report road fuel market study (publishing.service.gov.uk)

on qualitative evidence, industry engagement or from policy experts and are summarised within the IA[119].

Implementation periods

133. The counterfactual implementation period of Smart Data schemes is uncertain. This assumption has been based on the period of time when a retail banking solution was first considered to the time for a Smart Data scheme to be implemented (2000-2018) as well as the delays that have been observed through other voluntary Smart Data schemes. The other schemes are discussed in the options section. Specifically, the Midata scheme was originally proposed in 2011 but has not yet materialised.

134. It may be that schemes do not emerge at all. However, we also recognise that there will likely be some quickening now that there is an operational Smart Data scheme (Open Banking). There would also be lessons learnt from this process and the technology landscape is likely to change in the coming years. Thus, we have assumed that Smart Data schemes, in some form, would have been implemented from 10 years.

135. The implications of altering this assumption are demonstrated below. The later the base scenario the greater percentage of the costs and benefits would fall outside of the appraisal period (as an example in the 20-year implementation scenario there is only 1 year of implementation costs included and no benefit years). Therefore, if the base case implementation period is later there will likely be net costs included within the appraisal period.

136. With regards to the assumed implementation years, as a result of primary legislation, these periods were used to provide an indication of the impacts of speeding up the implementation of Smart Data schemes. These specific 3-year and 5-year implementation periods have not been based on underlying evidence but are to provide an indication of the effects of speeding up the implementation of the Smart Data schemes. If the implementation year was delayed the lower the overall NPV would be. In some scenarios the costs that fall within the appraisal period would not be counteracted by the additional years of benefit from the schemes.

Table 12 – Net present value differences (PV costs minus PV benefits) between alternative implementation scenarios, for the implementation of telecommunications Smart Data schemes (20-year appraisal period), using the best estimate cost scenario (£millions)

[119] DESNZ (January 2024): Road fuel retail market consultation: impact assessment (publishing.service.gov.uk)

Baseline implementation year, without primary legislation	Assumed implementation year, with primary legislation: 3	Assumed implementation year, with primary legislation: 5	Assumed implementation year, with primary legislation: 10	Assumed implementation year, with primary legislation: 15
10	-128	-88	0	-
15	-113	-73	15	0
20	202	242	330	315

Appraisal period

137. The appraisal period is crucial to ensure that the realisation of the benefits in the different implementation periods is realised. As there is a long lead time for the benefits to accrue with a sizable implementation cost the longer the appraisal period the greater the overall benefits within the appraisal period. In the central case for Open Banking and telecommunications impacts, we assumed a 20-year appraisal period but as can be seen below, if this was altered the outcome of the analysis could lead to different conclusions.

Table 13 – Net present value differences (PV costs minus PV benefits) between alternative implementation scenarios, for the implementation of telecommunications Smart Data schemes (25-year appraisal period - £millions), using the best estimate cost scenario (£millions)

Baseline implementation year, without primary legislation	Assumed implementation year, with primary legislation: 3	Assumed implementation year, with primary legislation: 5	Assumed implementation year, with primary legislation: 10	Assumed implementation year, with primary legislation: 15
10	-128	-88	0	-
15	-202	-162	-74	0
20	-189	-149	-61	13

Table 14 – Net present value differences (PV costs minus PV benefits) between alternative implementation scenarios, for the implementation of telecommunications Smart Data schemes (15-year appraisal period - £millions), using the best estimate cost scenario (£millions)

Baseline implementation year, without primary legislation	Assumed implementation year, with primary legislation: 3	Assumed implementation year, with primary legislation: 5	Assumed implementation year, with primary legislation: 10	Assumed implementation year, with primary legislation: 15
10	-22	18	0	-
15	352	391	374	0
20	567	607	589	216[120]

138. As the Road Fuel Open Data scheme calculations were completed within a secondary legislation IA, the appraisal period is shorter at 10 years. This is because it is assumed the scheme would be launched quicker than the estimations at primary legislation stage and therefore the impacts would be realised quicker.

Impacts at the secondary regulations stage

139. As stated above, we do not expect any direct costs from the delivery of primary legislation alone. The analysis in the above section sets out the potential impacts at scheme level of Smart Data. This section looks at the wider cross-sector impact of Smart Data at the secondary legislation stage. Instead of focusing on quantitative scheme level impacts, the costs and benefits of Smart Data to customers, data holders, data recipients and regulators are considered in more detail qualitatively.

140. This analysis builds on the experience of Open Banking (as the only live Smart Data scheme), and considers wider evidence from the finance, telecommunications, energy, and pension sectors.

141. The benefits and costs from Smart Data schemes will vary in magnitude and accrue across varying timescales, therefore it has not been possible to make an overall estimated annual net direct cost or benefit. The indicative evidence included in the following sections does however support the view that Smart Data benefits will outweigh the costs.

142. This analysis is not fully quantified given that:

a. More detailed analysis will be required in future impact assessments alongside sector-specific secondary legislation.
b. Impacts will vary significantly across sectors, so until sector specific evidence has been collated and secondary impact assessments completed an overall assessment of the impact is not possible.

143. As well as more detailed analysis at the secondary legislation stage, DBT would expect additional research and further consultation for specific Smart Data schemes. This should include research into and further

[120] In this scenario only 1 year of implementation costs are included in the estimate with not years of benefit realisation.

engagement with relevant stakeholders, including data holders, ATPs, consumer and business groups, social enterprises, and charities.

Benefits summary

144. Multiple groups could see benefits from the introduction of Smart Data. These include customers (consumers and businesses), data holders, data recipients (ATPs), and wider society. In some cases, benefits are transfers from one economic agent to another. This is to be expected of Smart Data schemes as they aim to reallocate benefits from incumbent data holders to customers and smaller, new entrants to markets.

145. Further discussion and evidence on the benefits of Smart Data discussed in this section can be found in Annex A.

Customers – consumers and businesses	**Data holders**	**Data recipients – third party providers**
• Access to new and innovative services, within and across sectors • Save time and effort – e.g. quicker and easier to access data and understand what it means • Save money – e.g. help finding and switching to better suited deals • Lower prices and higher quality due to increased competition • Opportunities for targeted support for vulnerable consumers • Improved security and fraud reduction	• Opportunity to create new innovative services and improve existing services • More effective growth and competition for smaller providers • Reduced time and resources spent on dealing with fraudulent activity and responding to data access requests • Opportunity to access wider product and performance data across the market e.g. can improve customer offer and market reach • Build customer trust and confidence through transparency • Improve technical infrastructure for data	• Access to new data creating valuable new markets and reducing the cost of market access • Opportunity to create new innovative services and improve existing services • Opportunities to compete with existing data holders and other third-party providers • Opportunities for government as the data recipient – e.g. HMRC using Open Banking payment services for PAYE • Potential for increased productivity for ATPs, and growth in the number of ATPs in the market

through the use of secure APIs • Better and wider range of services, allowing customers to use their data more effectively to navigate the market	sharing and for wider business use, helping create more revenue. For example, supply chain optimization • Opportunity to work collaboratively with regulators to shape future regulation • Clarifies that fines, financial penalties and charges must be set out in regulations, making it clearer to data holders and ATPs what they need to do/cannot do	• Regulations allow for ATPs to receive data in a consistent, easier to understand format allowing them to offer more effective services; and lower the barriers to entry for ATPs • ATPs receive a wider range of data, allowing them to offer a wider range of innovative services • Clarifies that fines, financial penalties and charges must be set out in regulations, making it clearer to data holders and ATPs on what they need to do/cannot do • The increase in effectiveness of enforcement, is also likely to lead to a reduction in costs for authorised persons and consumers who use Smart Data schemes as they will likely receive more consistent coverage from data holders

Benefits from Open Banking[121]

User benefits: Open Banking remains in the implementation phase, but it already has a strong user uptake (as of June 2024 Open Banking had over 10 million total consumer and business users[122] - It took 10 months to grow the number of users from 1 million to 2 million in 2020, whereas it took just four months to grow from 4 million to more than 5 million in 2022 which demonstrates the increasing appetite for services to move, manage and make the most of customer's data and money. A TrueLayer and YouGov study found that 74% of merchants plan to offer instant bank payments via Open Banking[123])) and significant benefits can already be seen. 22% of customers using Open Banking savings apps are first time saving account users, which suggests a broadening of savings participation. 64% of customers also have reported that saving services helped them save more and build a financial cushion.[124]

Vulnerable consumers: Open Banking already has several vulnerable consumer use cases. The Open Banking for Good[125] initiative ran a £3 million challenge fund to design Open Banking apps enabling income smoothing, money management products, and streamlining of income and expenditure profiles.[126] "Overstretched consumers" could also each save as much as £287 per year or 2.5% of their annual income.[127] Improved financial decision-making is the largest Open Banking outcome area, with it representing 43% of agents of regulated ATPs offering Open Banking-enabled products in June 2023[128]. In July 2021, the OBIE and techUK hosted a webinar discussion exploring financial inclusion, and how Open Banking can help with financial vulnerability.[129]

Fintech opportunities: As of September 2024, there were around 300 regulated providers with live-to market Open Banking enabled products and services[130] There is evidence these applications have strong uptake, with a total of 54.5 million Open Banking payments reported to OBL between January 2023 and June

[121] Open Banking benefits have not been measured against a clear counterfactual and additional benefits cannot be isolated, although they are benefits from Open Banking enabled services.

[122] Open Banking (June 2024): API performance stats - Open Banking

[123] Open Banking (July 2021): "July 2021 Monthly Highlights"

[124] DBT (July 2022): Signed 20.07.2022 - Final stage Impact Assessment – Smart Data primary legislation (publishing.service.gov.uk)

[125] Nationwide (October 2018): National competition launches with £3 million fund to develop digital services that help people struggling with money

[126] Nationwide (October 2018): National competition launches with £3 million fund to develop digital services that help people struggling with money

[127] OBIE representatives (June 2019):Consumer Priorities for Open Banking - 18% of UK adults are considered to be "over-stretched", and the term is described by "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."

[128] Open Banking (October 2023): The Open Banking Impact Report

[129] techUK and the OBIE (July 2021): "Financial inclusion and Open Banking with techUK and the OBIE"

[130] Open Banking Limited (Accessed: September 2024): Regulated Providers

2023[131]. The UK's early adoption of Open Banking has been a contributing factor in making London a hub for tech and producing and attracting investment in 'Fintech Unicorns'.[132] Investment into UK Fintech companies is second highest in the world[133], with $7.3 billion of investment in the first half of 2024[134] and the UK ranks second in the world for its number of Fintech unicorns, reaching a total of 18-30 in 2024.[135,136] Similar FinTech hubs are also emerging in other areas of the UK, such as in the West Midlands.[137] One example of a fintech unicorn operating in the Open Banking space is regulated provider TrueLayer, when in September 2021 it reached a valuation of over $1 billion and earnt 'unicorn' status, testament to growing industry demand for API banking.[138]

Customers

146. As shown in the Smart Data Use Cases section, Smart Data schemes present the opportunity for the introduction of several new services. This includes examples such as viewing multiple bank accounts in a single app, account sweeping tools to maximise interest and automated tax payments.

147. As a result, Smart Data tools and services can accrue several different benefits for customers. Some of the benefits include:

a. **Time and effort savings**, from quicker and easier access to data. This will likely reduce search costs and time spent by both customers and advisors when signing up for accounts. Time and effort could be saved for example when using Smart Data tools to compare various services across different markets, or receiving tailored advice. As a direct response to Covid-19, many SMEs saved time and money by using Open Banking for cloud accounting, cashflow forecasting and to access alternative credit providers, while consumers increasingly used Open banking to simplify and accelerate housing affordability checks, receive targeted debt advice etc.[139] Research for Open Communications found that one 'key pain point' that affected people and deterred engagement when searching for a deal was the time required, and overall the concept of Open Communications tackled a number of key pain points in the current ways of searching for a deal. The ease and speed of the process increased the appeal of Open Communications, and potential time savings were particularly important to

[131]Open Banking (October 2023): The Open Banking Impact Report

[132] FinTech unicorns - new businesses who have obtained a valuation of $1bn whilst remaining private

[133] Innovate Finance (July 2024): H1 2024 FinTech Investment Landscape

[134] KPMG (August 2024): UK fintech investment hits $7.3 billion in H1 2024 – almost triple the amount during H1 2023

[135] Beauhurst (March 2023) https://www.beauhurst.com/research/unicorn-companies/

[136] IMMO (2024): How the UK can remain a leader in the FinTech industry

[137] London Tech Week (March 2021): "12 Clusters of Tech – West Midlands"

[138] Open Banking (September 2021): "Open Banking Sep 2021 Highlights"

[139] BEIS (May 2021): "Smart Data Working Group"

participants who were engaged, those considered to be financially vulnerable, and SMEs. [140]

b. It is expected that through the sharing of their data, customers will be better placed for **informed decision making**. Smart Data would help make wider product and performance data more easily available, including other non-price factors that may not currently be available to customers and businesses without Smart Data.[141]

c. **Cost savings**, from assistance in finding and switching to better suited deals. Consumers who do not switch or recontract with their provider collectively pay an estimated £3.4 billion per year more than other customers across five essential markets, known as the 'loyalty penalty'.[142]

d. As demonstrated by Open Banking, Smart Data can open up new opportunities to **support vulnerable consumers.** As of May 2022, 24.9 million people in the UK displayed one or more characteristics of vulnerability.[143] Consumer insights from Ofcom's qualitative studies[144] showed that participants who suffered from mental health conditions felt that Open Communications would enable them to understand their needs and usage without needing to approach their provider.

e. **Lower prices and higher quality**, due to increased competition.[145] Active consumers will act as a driver for increased innovation and competition in the market.[146] Increased competition will drive direct benefit through a reduction of societal "deadweight loss".

f. **Increased security and fraud reduction**, through the use of standardised and secure APIs, enabling specific information to be shared securely and directly with ATPs at the customer's request and with their informed consent. Smart Data may entirely displace screen scraping, a less secure data sharing method, which has largely been the case with Open Banking where the practice is planned to be outlawed.[147] HMRC became the first Government department in the world to allow users to make Open Banking

[140] Ofcom (August 2020): "Open Communications qualitative research"
[141] Ofcom (August 2020) "Open Communications: Enabling people to share data with innovative services"
[142] Citizens Advice (October 2020): "The loyalty penalty in essential markets: Two years since the super-complaint" Five markets considered = mobile, broadband, home insurance, cash savings and mortgages.
[143] FCA (July 2023): Financial Lives 2022 survey: insights on vulnerability and financial resilience relevant to the rising cost of living
[144] Ofcom (August 2020) "Open Communications: Enabling people to share data with innovative services"
[145] This is a transfer benefit from provider to customer.
[146] As referenced in BIS (2012): "Order making power for midata"
[147] Pinsent Masons (September 2019): "PSD2: FCA gives temporary lifeline to screen scrapers"

payments in 2021, demonstrating the level of security Smart Data provides.[148]

Authorised Third Parties (ATPs)

148. Smart data is expected to facilitate innovation by enabling new ATPs to enter the market, provide new and innovative services through access to new data, and drive productivity and growth in relevant sectors, competing with existing data holders and other ATPs. Open Banking demonstrates the real benefit to businesses (see 'Benefits from Open Banking box for more detail), and the potential for growth in the number of ATPs entering the market.[149]

149. As has been seen with HMRC using Open Banking payment options, there is also an increased opportunity for ATPs to broaden their customer reach to the government as a data recipient, and help provide better quality data to inform Government policy.

150. Frontier Economics conducted analysis into the benefits of Smart Data to small and micro businesses and ATPs.[150] Under their central scenario, they estimated that the additional average productivity benefits for all sectors is 7.8% for new ATPs and 0.5% for existing ATPs,[151] when looking at the potential benefits over 5 years across banking, finance, energy and communications.

Data holders

151. The opportunity to innovate with Smart Data is not limited to third parties – many account service providers are also implementing new features using Open Banking. With access to wider product and performance data, data holders can have the opportunity to improve their customer offer and increase their market reach.

152. Smart Data could also help smaller providers grow and compete more effectively, as highlighted by Ofcom regarding Open Communications.[152] [153] FCA have already reported that growing competition has seen a shift from large banks to small businesses, and that the share of personal and micro-

[148] Open Banking (January 2022): "UK Open Banking marks fourth year milestone with over 4 million users"

[149] Number of ATPs entering Open Banking has grown by 80% in just under 2 years, 134 ATPs (2019) and 245 ATPs (December 2020).

[150] BEIS commissioned research (July 2022): Estimating benefits of Smart Data to small and micro firms and third party providers

[151] Broadly, the benefits for ATPs were calculated by estimating the productivity gains in a given sector. The productivity gains for a given sector were calculated by multiplying the number of ATPs by the additional average productivity gain per TPP in a given sector. The analysis splits ATPs into new ATPs entering the market over the specified timeframe, and existing ATPs.

[152] This is a transfer benefit from existing larger providers to new entrants.

[153] Ofcom (August 2020) "Open Communications: Enabling people to share data with innovative services"

business current accounts held by digital challengers rose between 2020 and 2021.[154] [155]

153. Data holders could also see benefits including improved technical infrastructure for wider business use. Respondents to an anonymous survey ran by BEIS to the Open Banking Directory said that Open Banking has been a catalyst for organisations to become more API enabled, created a movement towards better UI and cloud infrastructure, and over 35% of respondents agreed that the changes they made to implement Open Banking also benefitted their wider organisation. More detail on this survey can be found in 'Primary Legislation Costs'.

154. There is also an indirect benefit in the reduced amount of time and resources incumbent data holders spend preventing and dealing with fraudulent activity, with fraud costing businesses and individuals £137 billion each year in the UK.[156] As well as security and fraud savings, data holders are able to build customer trust and confidence through transparency and the increased security from Smart Data.

Wider society

155. Benefits expected to accrue to society could include:

a. **Value of the data economy**, improved productivity, and growth from businesses and consumers having greater access to data.

b. **International fintech advantage**, as Smart Data helps to establish the UK as a leader in data portability, FinTech and data technology. Securing the ongoing growth in the UK's Fintech sector will require, amongst other things, sufficient access to data to develop innovative products. Creating a solid base for safe and responsible data sharing through Smart Data will support the scaling up of innovations, both within the FinTech sector and the economy more widely.[157]

c. **Increased competition**, as increased data sharing reduces the market power of incumbent data holders and provides the opportunity for new and innovative services.

d. **Allocative efficiency**, as greater access to data will allow services to be provided closer to marginal costs.

e. **Better-informed research and policymaking**, with universities and the public sector benefitting from the improved quality of data sets as a result

[154] This is a transfer benefit from existing larger providers to new entrants.

[155] FT Adviser (January 2022): "FCA review finds competition is growing in retail banking"

[156] Crowe and the University of Portsmouth (June 2021): "The financial cost of fraud 2021"

[157] Kalifa Review (2021): "Kalifa Review of UK Fintech". Recommendations to Government from the review include prioritising Smart Data.

of Smart Data. The creation of Open Banking has required banks to invest and upgrade their digital infrastructure to facilitate real-time data sharing, and a benefit of this has been to allow banks to engage in data sharing initiatives like the GOFCoE partnership.[158]

Costs summary

156. Various groups could see costs from the introduction of Smart Data. These include regulators/other scheme administrators, data holders and data recipients (ATPs).

157. Further discussion and evidence on the costs of Smart Data discussed in this section can be found in Annex B.

Regulators/Other scheme administrators	Data holders	Data recipients – third party providers
• Regulation and enforcement of Smart Data schemes • Regulations allow for SoS or the Treasury to regulate the interface body and Treasury can sub-delegate to the FCA to issue direction in respect of the interface body for financial services Smart Data schemes • Expands the monitoring and compliance powers that regulation makers can give to the 'enforcer' of the Smart Data scheme	• Initial implementation of Smart Data scheme • Familiarising employees with regulations • Upgrading or improving technical and system infrastructure • Ongoing costs to comply with regulations • Resources to cover specified costs will be recouped from industry in accordance with regulations, possibly through levies, charges or another funding model	• Familiarising employees with regulations • ATPs face the cost of accreditation, to be authorised to handle and use customer data • Setting up and running technical infrastructure e.g. APIs and customer interface NOTE – ATPs will not be mandated to participate in a Smart Data scheme, therefore any costs that they incur will be at their own discretion.

[158] This is the Global Open Finance Centre of Excellence created by the University of Edinburgh in collaboration with partners. Through the partnership, greater insights into the financial impact of disruptions, such as those that accompanied Covid-19, have been illuminated.

• It is likely that there are administrative cost to enforcers, as there will be some costs associated with requesting documents and attendance at meetings by participants and interpreting this information • Provides powers for the Secretary of State and the Treasury to mandate via regulations that data holders must provide standardised business data to a public authority specified in regulations. It also includes further powers that regulation makers can mandate that this specified entity must publish or make available this business data upon request • The Secretary of State and the Treasury can provide financial assistance to the specified entity for the purposes of meeting expenses incurred by the regulations		

NOTE – Smart Data schemes are intended to be self-financing and should not require funding from existing government funds		

Costs of Open Banking

The costs the OBIE have faced in Open Banking can be used to provide an indication of the costs potential future schemes could face in pursuing an implementation entity model.

OBIE's annual report states that its net operating costs for 2020 was £32.7m. This was a 30% reduction in year-on-year net costs from 2019, when the OBIE's net cost position was £47.6m suggesting the strong potential for diminishing ongoing costs to an implementation entity as participation grows.[159]

OBIE's total costs for 2020 was £36.1m,[160] which is funded by the CMA9 (the 9 largest banks mandated to participate in Open Banking). OBIE received £2.2m in fee income in 2020 from non-CMA9 participants, which is what non-CMA9 ecosystem participants pay primarily for membership and use OBIE services. This figure increased from £0.6m in 2019 due to a growth in the number of participants utilising Open Banking services.

For the PSD2 part of Open Banking, HMT estimated one-off accreditation application and compliance support costs for the 175 relevant credentialled providers to be at £2.9m per annum.[161]

Regulators/other scheme administrators

158. When Smart Data schemes are introduced via secondary regulations, there will be costs incurred to operationalise the schemes successfully, and to ensure adequate regulatory oversight. Although these costs will initially fall on the sector regulator, or any other administrator named in the secondary regulations, resources to cover the costs will be recouped from industry via charges or using the sector regulators existing levy raising mechanisms, not from central government.

159. The costs incurred from Smart Data can be separated into two categories:

[159] Open Banking (2021): "2020 Financial Report"

[160] Open Banking (2021): "2020 Financial Report"

[161] HM Treasury (February 2017): "Implementation of the revised EU PSDII" IA

a. Costs incurred by regulators and scheme administrators which are then recouped from industry via charges and levies (referred to in this IA as 'implementation costs');
b. Costs incurred directly by data holders and ATPs to participate in the Smart Data scheme

160. As discussed in the Open Communications consultation response,[162] we would expect the 'implementation costs' for future schemes to be lower than those incurred by Open Banking as a result of technical differences between schemes, and learnings from Open Banking. In addition, both OBIE and ODI noted that costs could also be minimised by utilising the OBIE's existing standards and assets rather than starting from scratch.

161. Within the Road Fuel Open Data scheme impact assessment the net cost to business per year is £4million[163,164]. The comparison of the telecommunications and Open Banking cost estimates above and a Road Fuel Open Data scheme emphasises how it is not possible to isolate or predict exact impacts of potential future Smart Data schemes at this stage, as the design of each Smart Data scheme will affect the impacts.

162. For the Open Energy scheme, Icebreaker One[165] who lead on the scheme have confirmed that it will take an estimated 3 years for memberships to reach the level where Open Energy can be self-funding, and it is estimated that £10 million over these 3 years is needed to bridge this gap and get the scheme up and running. This is significantly less than was spent setting up the Open Banking scheme.

163. BEIS' anonymous Open Banking survey asked the respondents whether they believed a scheme in various sectors would cost more, less or the same as Open Banking. Across all the sectors identified, the most popular answer by respondents was that those schemes would cost less than Open Banking, particularly for the telecommunications and mortgages markets. However, most respondents thought the insurance market would cost either more or the same as Open Banking. It was flagged that in markets generally less digitalisation compared to the banking market prior to Open Banking, this could potentially cost cause them to cost more. More detail on this survey can be found in 'Primary Legislation Costs'.

Data holders

164. In addition to the 'implementation costs' which will be claimed back by the sector regulator and/or other scheme administrators, data holders will incur wider costs as a result of Smart Data schemes, including:

[162] Ofcom (July 2021): "Statement: Update on Open Communications: Enabling people to share data with innovative services", OBIE and ODI response
[163] DESNZ (January 2024): Empowering drivers and boosting competition in the road fuel retail market
[164] This figure has been uprated from £3.3bn in 2019 prices to 2024 prices.
[165] Icebreaker One

a. **Familiarisation costs**, to understand and familiarise with Smart Data regulatory requirements. DWP's analysis in the IA[166] accompanying the Pensions Dashboard primary legislation estimates total familiarisation costs for all 40,272 private sector schemes to be £2m in the first year of introduction, assuming two trustees per scheme to familiarise with new legislation. Results of BEIS' Open Banking survey highlights that these costs may vary between businesses, with one CMA9 firm providing an estimate for their total one-off familiarisation cost to be c.£5m, a medium firm estimating £500,000 and one micro firm estimating £5,000.

b. **Technical and system costs**, to ensure customer data can be appropriately shared. This is expected to be particularly relevant to large incumbent data holders, with insufficient legacy IT infrastructure. Smaller data holders and new entrants with greater flexibility are expected to be better adapted to handling Smart Data. Typical technical and system costs could include database standardisation and consolidation, upgrades to IT infrastructure and the cost of developing or contracting a dedicated interface.[167]

c. **Ongoing costs**, to remain compliant with legislation over time. This could include but not limited to the maintenance and running of IT infrastructure, the costs of secure data transfers and database consolidation. The IA for the Pensions Dashboard primary legislation estimates the ongoing costs to be £245 million - £1,540 million over 10 years.[168]

165. This list is not exhaustive of the costs that might be incurred, for example the evidence from banking also shows there may be resource and customer engagement costs beyond this.

Authorised Third Parties (ATPs)

166. ATPs will not be mandated to participate in a Smart Data scheme, therefore it is expected that ATPs will only choose to participate where they expect their individual benefits to exceed the costs.

167. If choosing to participate ATPs would face implementation and ongoing costs, such as but not limited to costs of familiarisation, accreditation, setting up and running technical infrastructure, and may also face the cost of a 'membership fee' as seen in Open Banking.

[166] DWP (October 2019):Pensions Bill 2019 IA

[167] The cost to develop or contract a dedicated interface would include the cost of singular APIs and providing an authentication service.

[168] DWP (October 2019): Pensions Bill 2019 IA

168. Technical Service Provider (TSP) response to BEIS' Open Banking survey showed that one micro TSP had a total cost of £5,000 to implement Open Banking, and another small TSP said this cost was £20,000. This small firm also shared that their estimated annual ongoing costs were £50,000, while the micro TSP estimated ongoing costs to be between £75,000 to £199,000. More detail on this survey can be found in 'Primary Legislation Costs'.

169. To access customer data, ATPs should be expected to meet specified requirements to ensure they are deemed appropriate to handle the data. This is referred to as 'accreditation'. The accreditation criteria and those that must comply with this will depend on sector specific schemes and will be set out in secondary regulations.

170. HM Treasury's analysis of PSD2[169] estimated that one-off accreditation application and compliance support for the 175 relevant credentialled providers would cost £2.9m, with annual costs to accreditation totalling £12.8m per year in their expected scenario. In response to BEIS' anonymous Open Banking survey, one small TSP also estimated that both their one-off and ongoing cost to be authorised to participate in Open Banking was £500.

Equivalised Annual Direct Costs to Business (EANDCB)

171. The additional impacts of the primary legislation compared to the 'do nothing' scenario are expected to be:

- ***Speeding up the delivery of Smart Data schemes:*** bringing forward the benefits and the costs highlighted in the following sections.
- ***Increasing legislative consistency:*** increasing the overall benefit through more consistent schemes, with increased opportunity for interoperability and cross-sector innovation.
- ***Enabling new schemes:*** creating new benefits for customers, new opportunities for businesses to innovate but also new costs for industry to operationalise the schemes.

172. We do not expect any direct impacts to businesses from the primary legislation alone. While the primary legislation mandates the participation of data holders it is the secondary legislation that makes use of the mandating. There will be no immediate implications to the data holders until the secondary legislation utilises the powers.

[169] HM Treasury (February 2017): "Implementation of the revised EU PSDII" IA

173. Given the indicative nature of this assessment and the uncertainty regarding the number of Smart Data schemes which could be expedited, it was thought that this assessment would be inappropriate to include in the summary sheets of the Impact Assessment, or the associated summary calculations (BIT, EANDCB, etc).

174. Indirectly we expect that there will be impacts because of bringing forward the implementation and running of the schemes for additional time. Please see the "Impacts at the Primary Legislation Stage" section of the IA to see the estimated additional (as a result of bringing forward the implementation and running of the schemes for additional time) costs of implementing different Smart Data schemes.

Small and Micro Business Assessment (SaMBA)

175. As defined by the better regulation framework guidance,[170] a small business is defined as those employing between 10 and 49 full-time equivalent (FTE) employees, and micro businesses are those employing between 1 and 9 employees.

176. Small and Micro Firms (SMFs) are in scope of the legislation to be mandated to participate in a Smart Data scheme. SMFs have not been carved out of the powers to enable Smart Data Schemes at secondary stage, to allow for wider range of options and scheme design. This is so that schemes can be tailored to the specific sector or market in question. For example, there may be schemes where for the use case to be beneficial there needs to be participation from every business within the sector or sectors where a collection of small, but successful, businesses have many customers.

177. As Smart Data schemes will be designed at secondary legislation stage, there is the potential for all Smart Data schemes aims and objectives to be different. Exempting SMFs from the legislation would risk the objectives of future schemes not being able to be met. For example, a Road Fuels Open Data Scheme, implementation of which is subject to the government's response to the road fuels consultation which will be published in due course, could aim to give more information to consumers to allow them to make more informed decisions about buying their fuel. There are currently 637 small or micro business's operating as PFSs, which account for less than 10 percent of all fuel operators.[171] If they were to not be in scope of the scheme, then consumers would not have all the information on fuel providers within their area and would lead them to not be able to make a

[170] RPC case histories (August 2019): "Small and Micro Business Assessment (SaMBA)"

[171] DESNZ analysis based on UKPRA data: https://www.ukpra.co.uk/_ImageHandler/getFIile/5291f807-e9f5-4443-983b-65be6462f943.

fully informed decision. It could also allow SMFs to put their fuel prices up, as they are aware that they are not easily monitored and consumers will not know the price beforehand, reducing competition incentives.

178. To mitigate a disproportionate risk to SMFs, due to being mandated in a Smart Data scheme, the Smart Data primary legislation requires that the Secretary of State or The Treasury have regard to the likely effect on small businesses and micro businesses within secondary legislation. This is alongside a requirement to have regard to (among other things) the likely effects on customers, innovation and market competition. Therefore, we would expect this and any consultation on scheme design to identify those risks, and act if they are disproportionately high. All sectors are different, so the consideration of how SMFs and Micro businesses are impacted should be considered as a part of the design of regulations. An example of a mitigation is that a possible scheme design may allow for a third-party recipient to receive data from data holders and to then publish or provide that data to another person. This allows for the third-party recipient to collect data through methods more easily accessible to SMFs, like online or manual entry. The setting up of a monitoring function is also another option that government may choose to do when mitigating against any risks for SMFs. Scheme designers should also consider mitigating any impact on SMFs by considering the proportionate impact of fees and levies on SMFs when determining how the schemes are funded.

179. In this IA, the impacts on SMFs have been considered for Telecommunications, one of the main Smart Data schemes currently in scope.

180. Using Telecommunications to provide an example of the amount of SMFs that could be in scope of legislation, currently in the UK 33% of businesses in the Telecommunications sector are defined as having below 49 employees. [172] Whether this sector is in scope of this scheme will depend on the scope and thresholds set in secondary regulation.

181. The specific thresholds for mandatory participation will be decided for individual schemes to reflect differing market structures and will be set out in secondary regulations. We expect Smart Data to be mandatory for medium/large, incumbent data holders in scope of the regulations, with smaller data holders and ATPs choosing to participate on a voluntary basis. We would therefore expect SMFs to participate where they see the benefits to exceed the costs for their business.

[172] DBT (October 2024):Business population estimates 2024 , using SIC code 61, table 6 registered employees only. Estimates of unregistered business numbers are less reliable for these divisions, so have not been included in these figures.

182. DSIT have said that they are currently reviewing and seeking input on businesses in scope for requirements, including whether smaller businesses should be exempt from requirements. Although at present they do not propose an exemption based on business size by employee band, as the providers of residential telecoms are typically large businesses, they expect requirements to mainly affect large and established telecoms firms.

Cost savings

183. As discussed in ATP benefits, Frontier Economics conducted analysis into the benefits of Smart Data to small and micro businesses and ATPs.[173] A full methodology explanation and set of assumptions can be found in their research note.[174] This work indicates the potential benefits over 5 years across banking, finance, energy and communications. For ATPs, the estimates focus on potential productivity gains and growth in the number of ATPs. For SMF users of Smart Data, the estimates focus on potential cost savings.

184. Sensitivity tests were used to demonstrate the range of potential benefits, as there remains uncertainty about potential use cases and uptake of these services across the sectors.

Table 12 – Estimated cost savings for small and micro businesses from Smart Data schemes[175]

Sector	Cost Savings (rounded to the nearest £10m, 2019 prices net present value for 5 years)
Banking	£ 29,450m
Finance	£ 5,610m
Energy	£ 40m
Communications	£ 10m
Total	£ 35,110m

185. The costs savings to SMFs in energy and communications are significantly lower than those in banking and finance. This takes into account

[173] BEIS commissioned research (July 2022): Estimating benefits of Smart Data to small and micro firms and third party providers

[174] BEIS commissioned research (July 2022): Estimating benefits of Smart Data to small and micro firms and third party providers

[175] The benefits for SMFs were calculated by multiplying the number of SMFs adopting services by the average cost saving per SMF in a given sector. The average cost savings per SMF was estimated from stakeholder interviews and literature reviews.

the smaller number of SMF users for these services and their overall expenditure in communications and energy sectors is far lower than that in banking, and this is a component of the calculation used to assess relative size of the sectors. Use cases in energy and communications were restricted to those which resulted in increased switching to better tariffs for SMFs, which naturally have a lower value than the wider range of use cases in banking and finance (such as cloud accounting) – which were also estimated to provide much more value.

Costs

186. As previously discussed, BEIS conducted a survey to collect evidence on the costs of Open Banking. Focusing on the costs currently faced by organisations with less than 49 employees can provide an illustration of the costs faced by SMFs to participate in a mandated data sharing scheme. We found that the majority of small and micro firms faced implementation costs below £200,000. This ranged from £5,000 to £200,000. No SMFs estimated their total one-off implementation costs to be above £2m. The majority of SMFs estimated their annual ongoing costs to be below £75,000 per annum. From those who provided firm estimates, this ranged from £50,000 down to £10,000 per annum. No SMFs estimated ongoing costs to be above £200,000. More detail on this survey can be found in 'Primary Legislation Costs'.

187. Proportionality analysis comparing the costs of a Telecommunications scheme to SMFs and large businesses has been completed by scaling the costs of Open Banking to SMFs to the Telecommunications sector. Within this analysis we take the same assumption in the 'Primary Legislation Costs' section of the IA that Telecommunications costs will be 49% of Open Banking's. The Business Population Estimates 2023 dataset[176] can be used to estimate the average revenue for an SMF in the telecommunication sector.

188. Using this method, and the survey evidence described above, we can assume that the majority of SMFs would face implementation costs below £98,000, which is 3.76% of the average revenue for an SMF in the telecommunications sector. We can assume that the majority of SMFs annual costs will be below £37k per annum, which is 1.41% of the average revenue for an SMF in the telecommunication sector.

189. In comparison, BT estimated that Open Communications would cost them between £40m-£100m (including 'implementation costs'), representing 0.19-0.47% of BT Group revenue in 2021, £21.3bn.

[176] DBT (October 2024): Business population estimates 2024

Conclusion on costs and benefits

190. Due to incomplete, non-comparable data and a risk of double counting, it is not possible to directly compare the costs and benefits of future Smart Data schemes. Based on the evidence which has been set out, it is expected that Smart Data as a whole and specific Smart Data schemes will have a net benefit to society and these benefits will be accelerated and increased as a consequence of primary Smart Data legislation.

191. Based on the qualitative and quantitative estimations of the impacts in the above 'Analysis' section, we would expect multiple groups to see benefits from the introduction of Smart Data schemes across sectors. These groups include customers (consumers and businesses), data holders, ATPs and wider society. Overall, the evidence in this IA suggests that the estimated benefits are likely to be large compared to the estimated costs. Though as the benefits are largely due to encouraging innovation, there is uncertainty. The exact costs and benefits will depend on the exact scheme design in each sector.

192. The benefits are listed in detail in the 'Secondary Legislation' section of this IA, but we would expect that all groups would benefit due to access either new innovative goods or services across sectors or access to data which gives the opportunity to create new innovative services and to create valuable new markets.

193. Evidence of consumers accessing new innovative services as an impact of Open Banking can be seen as in June 2024, there were over 10million active users of Open Banking services[177], with 1 in 7 digital consumers now having an active Open Banking or having made a payment using Open Banking.[178] As of July 2024, there are over 300 regulated providers of Open Banking enabled services, who offer those innovative services. For example, improved financial decision-making, expanded payments choices and better borrowing budget. Smart Data can also cause investment within new markets due to access to data or new innovations and among firms active in Open Banking, 82 alone have raised over £2bn of funds since the introduction of Open Banking regulations in 2018.[179] These firms also created over 4,800 skilled jobs, with spillover effects in value for the financial services sector and consumers.[180]

194. We would also expect to see consumers accessing lower prices and higher quality goods due to increased competition, allowing them to save money due to Smart Data enabled services. Consumers who do not switch

[177] OBL (July 2024): API performance stats - Open Banking

[178] OBL (March 2024): Latest Impact Report shows strong growth and the power of payments - Open Banking

[179] Startup Coalition (March 2023): Open Banking March 2023 V1 (coadec.com)

[180] Startup Coalition (March 2023): Open Banking March 2023 V1 (coadec.com)

or recontract with their provider collectively pay an estimated £3.4 billion per year more than other customers across five essential markets, known as the 'loyalty penalty'.[181] Smart Data would allow for consumers to save time and effort, from quicker and easier access to data along with making more informed decisions as Smart Data helps to make wider product and performance data more easily available.

195. Smart Data can have effects to the wider society, including helping to establish an international fintech advantage, allocative efficiency (as greater access to data will allow services to be provided closer to marginal costs) and better-informed research and policy making.

196. The costs of Smart Data are likely to fall on incumbent data holders in the market. Consequently, incumbent data holders have limited incentives to implement Smart Data, and they may also benefit from not sharing data and maintaining a competitive advantage. However, despite Open Banking only being mandatory for the CMA9, many smaller challenger banks have voluntarily entered the Open Banking ecosystem, demonstrating the scale of benefits the scheme offers.

197. Across Smart Data schemes, we would expect data holders to have costs of implementing the regulation in their sector, including familiarising employees with regulations, upgrading or improving technical and system infrastructure. OBIE stated that its net operating costs for 2020 was £32.7m. This was a 30% reduction in year-on-year net costs from 2019, when the OBIE's net cost position was £47.6m suggesting the strong potential for diminishing ongoing costs to an implementation entity as participation grows. Results of BEIS' Open Banking survey highlights that these costs may vary between businesses, with one CMA9 firm providing an estimate for their total one-off familiarisation cost to be c.£5m, a medium firm estimating £500,000 and one micro firm estimating £5,000. Incumbent data holders would also face ongoing costs to comply with the regulations in the long-run, including resources to cover specified costs on the enforcement of Smart Data, that may be recouped through industry levies and charges.

198. This variation of costs can also be seen by the range of costs presented above for the Open Banking, Telecommunications and Road Fuel industries. They showcase that scheme-specific factors and design elements cause the costs and benefits of each scheme to vary and that further analysis will need to be completed at secondary legislation level to understand exact impacts. All three estimations showed that the benefits outweighed the costs, with the net present value being positive. Please see the 'Primary Legislation Impacts' section of the IA to see this in more detail.

[181] Citizens Advice (October 2020): "The loyalty penalty in essential markets: Two years since the super-complaint" Five markets considered = mobile, broadband, home insurance, cash savings and mortgages.

199. Although there is a strong argument to suggest that the benefits of Smart Data outweigh the costs – and the illustrative analysis confirmed this - it is important to note that there are sensitivities to this analysis. These outlined in more detail in the ‘sensitivities' and ‘risk’ sections of this IA.

200. One sensitivity is the appraisal period for the schemes. Analysing net effects with different appraisal periods is crucial to ensure that the realisation of the benefits in the different implementation periods is realised. As there is a long lead time for the benefits to accrue with a sizable implementation cost the longer the appraisal period the greater the overall benefits within the appraisal period. When completing a sensitivity analysis of the appraisal period for the telecommunications sector, it did find that with a shorter appraisal period (at 15 years) there was not net benefits, which indicates that over time net benefits can be seen, but in the earlier years of a scheme the costs may outweigh the benefits.

201. It is estimated above that a Road Fuel Open Data scheme would provide net benefits at the low, central and high estimate over a 10-year appraisal period. An appraisal period of 10 years (compared to 20 within Open Banking and a Telecommunications scheme) has been used to be consistent with the secondary legislation consultation IA. It was deemed appropriate for the appraisal period to be 10 years for this scheme as it was being assessed at secondary legislation consultation stage, and therefore the expected implementation date was more certain.

202. Another sensitivity that is important to note when analysing whether the benefits outweigh the costs of Smart Data is that the telecommunications analysis also assumes that there will be between 1%-20% uptake from consumers of the scheme over 10 years. If this analysis is optimistic and for example, the scheme only has 10% of uptake over 10 years the net present value will be different, and the benefits are likely to be smaller.

203. Further consultations and impact assessments will be required alongside any sector specific secondary regulations to implement a Smart Data scheme. This will ensure the decision to take forward a specific scheme will be subject to more detailed consideration of both potential costs and benefits, along with wider considerations such as the impact on competition and innovation.

Key risks

204. The proposed preferred option assumes that DBT’s’ intervention will both speed up and increase the quality of Smart Data schemes. The primary risks associated with the introduction of new Smart Data powers are:

a. The powers are not used to introduce schemes and no acceleration benefits are realised;
b. Inconsistent implementation and design of secondary regulations limits the potential for coordination, efficiencies, and interoperability.

205. DBT to date has engaged extensively with relevant stakeholders to mitigate these risks. For example, the Smart Data working group was established to bring together government departments and regulators with the aim to:

a. support the development and delivery of Smart Data infrastructure and standards for the benefit of consumers, particularly vulnerable consumers
b. where appropriate encourage commonality or consistency of approach across Smart Data initiatives to enable interoperability and cross-sector innovations
c. improve efficiency by reducing duplication across Smart Data initiatives and re-using assets or resources from prior Smart Data initiatives

206. DBT continues to drive cooperation and coordination across sectors. We intend to build on the work undertaken by the Smart Data Working Group, developing an active ecosystem for Smart Data and support greater collaboration and coordination.

207. As part of this DBT have launched two workstreams that aim to identify a variety of use cases, find ways to encourage greater cross-sector data sharing, and support wider sectors explore future Smart Data schemes. The workstreams are:

i. The Smart Data Council[182] aims to find ways to help extend the benefits of Smart Data to new sectors. The Council is made up of key government departments, regulators, industry, and consumer groups. The Council will direct coordination and drive collaboration and knowledge-sharing across the key decision makers and stakeholders.
ii. The Smart Data Discovery Challenge[183] calls on innovative thinkers across industry to recommend new solutions that could benefit individuals, small businesses, and wider society. It aims to foster individual innovators and partnerships to develop their initial ideas into feasible concepts with potential to move into development. Following the Discovery Challenge, DBT are planning a full challenge prize, where these ideas could be tested in a sandbox environment.

[182] DBT (April 2023): New Smart Data Council to drive forward savings for household bills
[183] DBT (October 2023): Government-led coalition launches open call for bold and innovative ideas using Smart Data

208. To identify and mitigate against any risks or unintended consequences, any secondary regulations using the Smart Data powers will go through the affirmative procedure to ensure there is robust legislative scrutiny of the measures. As part of this, a proportionate Impact Assessment and relevant Post Implementation Review requirements would need to be produced.

209. The remainder of this section sets out further the risks associated with Smart Data schemes.

Reduced competition

210. There is risk that Smart Data may unintentionally harm competition. For example:

a. ***Too strenuous compliance obligations for data holders or third parties***, leading to increased barriers to entry and reduced competition. A consultation prior to secondary legislation will help minimise this risk.

b. ***Data mobility providing dominant incumbent data holders with more market power***. Emerging research[184] suggests that increased data mobility could lead to customers becoming increasingly attracted to their existing, dominant providers who can utilise product/performance data from other providers to their advantage. However, Open Banking has been recognised by the CMA as a key step towards unlocking competition in retail banking and the evolution of the UK's fast-growing fintech sector.[185] This is evidenced in the continued growth of the Open Banking ecosystem.[186] Smart Data schemes can minimise these effects (for example by providing exemptions for smaller providers) and existing competition law should mitigate the potential for excessive market power.

c. ***Damaged incentives to differentiate on privacy and security*** if government mandate interoperability, which is a key source of competition in markets such as digital platforms.[187] Using the tiering of standards, for instance based on risk factors or the nature of the data involved, or specific exemptions could mitigate this by ensuring proportionate approaches are used.

[184] BoE (December 2019): "Platform competition and incumbency advantage under heterogeneous switching cost — exploring the impact of data portability" paper, & Stratechery (May '18): "The Bill Gates line" article
[185] CMA (November 2021): "Update on Open Banking"
[186] Number of ATPs entering Open Banking has grown by 80% in just under 2 years, 134 ATPs (2019) and 245 ATPs (December 2020).
[187] FT (October 2017): "Privacy is a competitive advantage" article, among other examples such as Signal, DuckDuckGo etc.

d. ***Lock-in to a suboptimal standard specified by government***. This risks constraining industry from innovating beyond the standards which could improve Smart Data schemes. To minimise this risk, broad stakeholder engagement will be required when designing future schemes.

e. **A mandatory Smart Data scheme could facilitate price collusion among businesses.** Increased transparency though a Smart Data scheme which shares information in an open, free and real time basis could potentially increase the risk of price collusion and/or anti-competitive exchanges of commercially sensitive pricing information. In theory, this could lead to prices becoming higher as firms can more easily see how the other firms are pricing and match that, rather than competing. To minimise this risk, enforcement and monitoring plans for non-compliance and anti-competitive behaviour are required to be considered at secondary legislation level.

Reduced data holder incentives

211. If data holders have to share their collected data with ATPs, they may be less likely to recover the cost of data collection in the first place as any competitive advantage may be lost. This could present a free rider problem, where ATPs benefit from data collection without contributing to its provision. This risk is minimised by the fact that the majority of data in-scope of Smart Data is personal and product data, which will have been collected regardless of intervention. This risk is further minimised by the UK GDPR's data minimisation principle.

Poor security

212. Smart Data is expected to benefit consumer data security by creating strong standards and displacing less secure practices such as screen scraping. However, if security considerations behind the standards are weak, this could risk decreased security of customer data, including leakage of data.

213. In addition, increasing the use of digital services and enabling new intermediaries could present new opportunities for security risks as data is more readily transferred from one place to another. However, accreditation requirements, that would likely include security requirements, would help ensure that participants in the Smart Data ecosystem have adequate security and are trustworthy. Accreditation requirements are also expected to aid consumers, reducing the need for time spent understanding which agents are legitimate and which are not.

Lack of uptake of Smart Data schemes

214. The benefits of Smart Data would be reduced, yet the majority of costs would still be incurred, if there is a lack of uptake of Smart Data schemes. This may be because of a lack of trust in the ecosystem, a perception that there is no benefit of Smart Data enabled services, or a lack of awareness these services exist. Examining public attitudes towards potential Smart Data schemes, the Centre for Data Ethics and Innovation (CDEI) found that schemes will need to overcome initial consumer uncertainty about the direct benefits of data sharing and concerns about potential risks[188]. Schemes will also need to win the trust of a full range of consumers, both those hesitant about using digital tools and those that are more digitally engaged. In addition, they found that consumers tend for stick with banking and telecommunications services providers that they know and have used, but that having positive previous experience with Smart Data services increased consumers' support for these types of services.

215. However, over recent years we have seen exponential growth in Open Banking users. The pandemic was also a catalyst for a step- change in digital skills for some participants, with 92% of UK adults using the internet at home or somewhere else.[189] Furthermore, 83% of internet users used online banking in 2021,[190] up from 51% in 2019,[191] much of which is likely facilitated by Open Banking and APIs.

Lack of demand for Smart Data services

216. Related to low user uptake is the assumption that Smart Data will enable products that customers will want to use and an ecosystem ATPs want to join.

217. Evidence from banking shows the wide-ranging innovations offered by ATPs and high user demand for these services. There are several other examples in the energy sector:

a. The collective switching energy trial[192] featured a simplified switching process, similar to potential Smart Data use case, and found a "substantial impact on switching among customers who have not switched energy tariff for many years and can be delivered at scale".

[188] CDEI (June 2022): Part one: Examining public attitudes towards Smart Data schemes

[189] Ofcom (March 2023): Adults' Media Use and Attitudes report 2023

[190] Ofcom (April 2021): "Adults' media use and attitudes report 2020/21"

[191] Ofcom (May 2019): "Online Nation 2019 report"

[192] Ofgem (August 2018): "Eight times as many people get a better deal in Ofgem's collective switch trial" Press Release

b. Ofgem user research on midata[193] tested a functional prototype of a price comparison website. Participants were less concerned about sharing their energy data than their financial data, but were generally comfortable with sharing data when it is clear what they are consenting to. A key takeaway from this research is that clear communication and messaging is required to drive adoption, particularly around consent.

c. Previous midata[194] IA contains surveys showing 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. Further research from Ofcom highlights that 40% of surveyed internet users were not aware of any of the ways in which online companies collect their personal information.[195]

Changing prices for consumers

218. It is unclear how incumbent data holders will amend their pricing strategy in response to Smart Data schemes. Costs could potentially be passed onto customers, an uncertainty which Ofcom noted but stated they see no immediate competition concerns arising from Open Communications.[196]

Misuse of customer data

219. As a result of increased data sharing, there is a potential for an increase in the misuse of customer data. This could include potential risks such as an increase in 'nuisance' calls and contact, or unwelcome selling-on data.

220. However, standards and security requirements would ensure that customer data can only be used for purposes as specifically requested by the consumer. There is a potential for agents to sell on customer data, but it would be at the customer's discretion whether they consent for their data to be used for these purposes.

Wider impacts

Public Sector Equalities Duty

221. The Department is required to comply with the public-sector equality duty (PSED) set out in the Equality Act 2010 ("the Act"). The PSED requires

[193] Ofgem (October 2020): "Midata Discovery and Proof of Concept User Research Findings"
[194] Referenced in the BIS (2012): "Order making power for midata"
[195] Ofcom (April 2021): "Adults' media use and attitudes report 2020/21"
[196] Ofcom (August 2020) "Open Communications: Enabling people to share data with innovative services"

the Minister to have due regard to the need to advance equality of opportunity, hinder discrimination and foster good relations between those with and without certain protected characteristics. This due regard is taken to eliminate unlawful discrimination and to tackle prejudice and promote understanding. The characteristics that are protected by the Act are: age, disability, gender reassignment, marriage or civil partnership (in employment only), pregnancy and maternity, race, religion or belief, sex and sexual orientation.[197]

222. Smart Data is intended to improve equality, however there is a risk that not all groups will benefit. For example, the less digitally engaged, such as the elderly, may not use Smart Data enables services which would mean they do not fully realise the associated benefits.[198]

223. Smart Data has a particular interest in vulnerable consumers, a category of consumers who find it difficult to engage in a given market. There is no universal definition of vulnerable consumers, as vulnerability can mean different things depending on the sector in question. The Financial Conduct Authority perceives vulnerability as a spectrum of risk; while all customers are at risk, certain characteristics or drivers increase this risk. These drivers include poor health, cognitive impairment, life events e.g. new caring responsibilities, and low ability, such as poor literacy.[199]

224. There is moderate overlap between the broad definitions of vulnerability and protected characteristics. Some protected characteristics are harder to assess than others. Secondary data often doesn't include sexual orientation, pregnancy or religious belief as standard socio-demographic variables. Nonetheless, it is possible to draw inferences from the correlation between some protected characteristics and the drivers of vulnerability. For instance, if we consider low income as a drive of vulnerability –an average of 79% of Bangladeshi households were in the two lowest income quintiles, compared to 42% of White British households who were in the highest 2 income quintiles.[200]

225. Research on vulnerable consumers highlights that consumers who are digitally excluded may experience a 'poverty premium' due to their inability to

[197] HM Government, Discrimination: your rights

[198] Fair By Design: "Low income consumers pay a poverty premium equivalent to three months' worth of food", being on the best energy prepayment tariff still could be £131 more expensive than the best online-only one.

[199] FCA (July 2021): "Guidance for firms on the fair treatment of vulnerable customers"

[200] Gov.uk (May 2023): Income Distribution, 2023

access and engage with the market effectively,[201] and as of May 2022, 47% of all adults in the UK showed characteristics of vulnerability.[202]

226. However, Open Banking has already demonstrated the types of innovative services and tools that could be used to benefit vulnerable and currently excluded consumers, and the new opportunities it can create. From financial safeguarding and support, to the simplification of everyday tasks, there are a number of current use cases targeted at identifying and supporting vulnerable consumers. For example, by combining Open Banking data with data from other sectors a person in financial difficulty could share their utilities or wider financial data to improve the effectiveness of bill management and payment scheduling apps currently operational under Open Banking.

227. OBIE and TechUK hosted a webinar discussion in 2021 exploring financial inclusion.[203] A panel of experts in financial inclusion and vulnerability discussed areas that Open Banking can help with, including financial vulnerability, access to services and support for the 'unbanked' and reducing the poverty premium. Ofcom's qualitative studies[204] also showed that participants who suffered from mental health conditions felt that Open Communications would enable them to understand their needs and usage without needing to approach their provider.

228. As well as benefitting from services and tools aiming to improve financial decision-making and increased access to advice and guidance, increased competition as a result of Smart Data could also lead to better prices for unengaged as well as engaged consumers. [205]

229. In 2020, 85% of all UK adults used a smartphone,[206] and a smartphone was reported to be the device most likely used to go online with 85% of internet users using a smartphone for this purpose.[207] Smartphone penetration and usage is likely to increase further, providing an ever-growing opportunity for more people to be included in Smart Data schemes.

[201] Fair By Design: "Low income consumers pay a poverty premium equivalent to three months' worth of food"

[202] FCA (July 2023): Financial Lives 2022 survey: insights on vulnerability and financial resilience relevant to the rising cost of living

[203] techUK and the OBIE (July 2021): "Financial inclusion and Open Banking with techUK and the OBIE"

[204] Ofcom (August 2020) "Open Communications: Enabling people to share data with innovative services"

[205] 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.

[206] Ofcom (April 2021): "Adults' media use and attitudes report 2020/21"

[207] Ofcom (April 2021): "Adults' media use and attitudes report 2020/21"

230. Several actions will be taken to reduce the risk of worsening inequalities in vulnerable consumer groups. Broadly, DBT will coordinate across sectors to identify opportunities that ensure Smart Data is utilised by unengaged and less engaged consumers. In parallel, departments looking to develop secondary Smart Data legislation will be responsible for identifying the impact of Smart Data on consumers, particularly vulnerable consumers. Measures should include:

a. Departments should conduct demographic analysis to better understand different groups, levels of engagement and those most at risk. A good example of this is the midata QR codes proposal analysis for energy bills.[208] The BIS QR code working group concluded that QR codes on energy bills may be a useful channel to improve engagement; with widespread ownership of smartphones, and many smartphones being capable of reading QR codes. The QR codes could direct the user to a tariff comparison page.

b. DBT and relevant departments should consider interventions targeted at vulnerable consumers to help encourage innovative services aimed at providing tangible solutions to meet consumers' needs. There are also sector specific challenge funds such as Open Banking for Good (OB4G);[209] OB4G aimed to help create and scale Open Banking apps and online services to benefit customers on low income or otherwise financially vulnerable. A report from Bristol University suggests OB4G largely met its expectations and enabled innovations that tackled real issues for people who were 'financially squeezed'.[210]

c. All relevant departments should aim to conduct additional research into vulnerable and digitally excluded consumers, and how to improve equality and avoid disempowering these groups through the increased use of Smart Data schemes, both within and across the sectors. This should build off the important work of regulators, for example the UK Regulator Network's research with Revealing Reality into the attitudes of vulnerable consumers to data sharing.[211]

231. DBT commissioned Savanta to complete research that focused on how to design and create inclusive Smart Data schemes and produced a set of principles to help vulnerable consumers interact with Smart Data[212]. The report identifies 4 "pillars" of inclusion:

[208] BIS (January 2014): "QR code use in energy sector: midata programme study"

[209] Nationwide (October 2018): National competition launches with £3 million fund to develop digital services that help people struggling with money

[210] Collard and Evans, University of Bristol (March 2021): "Open Banking for Good: Making a difference?"

[211] UKRN (November 2020): "How can we help you?"

[212] DBT (July 2023): Design principles for inclusive Smart Data schemes research

iii. Trust
iv. Consent
v. Control
vi. Support and Redress

232. This report identifies 21 inclusive Smart Data design principles to mitigate the barriers to inclusion that should be considered in the development of future Smart Data schemes.

Trade impacts

233. Being the global lead in Open Banking, the UK has an opportunity to extend this lead to other Smart Data sectors, where UK businesses with experience in Smart Data may have the ability to more easily expand internationally and strengthening the UK's global trade.

234. By furthering the UK's leading approach towards data portability with initiatives such as Smart Data, we can expect to see further opportunity to extend the UK's tech leadership, and by providing an opportunity for international firms to expand into the UK, attracting further foreign direct investment while increasing competition for domestic firms with knock-on benefits for customers.

235. The Kalifa Review of UK FinTech[213] recommends delivering a strong regulatory strategy and international action plan to build a leading position for UK FinTech, which Smart Data can help enable.

Monitoring and Evaluation

Primary legislation

236. DSIT is planning and will be leading the bill-wide post legislative scrutiny, including monitoring and Evaluation. In line with best practice and to ensure the legislation is having the envisaged impact, DSIT have committed to conduct a proportionate post implementation review within 5 years of implementation. Specifically, to monitor and evaluate the impact of the Smart Data primary legislation, an evaluation which is based on the underlying theory of change for the measure will be undertaken.

237. The impact of the legislation will be assessed against the key objectives of the legislation and could use the following metrics:

[213]Kalifa Review (2021): "Kalifa Review of UK Fintech". Recommendations to Government from the review include prioritising Smart Data

a. ***Reduction in regulatory duplication*** This should be measured by the number of Smart Data schemes using the primary legislation
b. ***Acceleration of schemes:*** The length of time taken for DBT to develop primary legislation could be taken as a proxy for the amount of time saved for relevant sectors, assuming sectors would have independently sought primary legislation otherwise. The number of Smart Data schemes implemented or in the implementation stage using the primary legislation could also be used as a metric to measure the acceleration of schemes. The baseline scenario assumes that Smart Data schemes would materialise after 10 years without legislation, so if there are Smart Data schemes implemented within the 5-year review period then the benefits have been realised earlier.
c. ***Cross-sector coordination:*** This could be measured by the number of ATPs operating successfully across multiple sectors, or the marginal costs to ATPs entering a second scheme, compared to the counterfactual.

238. Across all these objectives, and in evaluating the quality of Smart Data schemes, a key challenge is establishing a robust counterfactual for what would have occurred in the absence of primary legislation. There is no plausible way to separate what extent of the scheme's outcomes are a result of the coordinating work of Smart Data and what are the results of the scheme itself.

239. DBT will supplement its monitoring and evaluation of the primary legislation as a whole described above, by monitoring the output of each evaluation of the secondary legislation.

240. The counterfactual will vary by scheme and should reflect the sector specific circumstances. While Open Banking could be used as an example, it is not underpinned by this primary legislation, and it is expected that learnings from Open Banking can help accelerate the implementation of other Smart Data schemes. Examples of schemes where the counterfactual is likely no scheme emerging:

a. ***Open Finance*** - In the Open Finance consultation response,[214] FCA said that a legislative framework would be needed for Open Finance to develop fully. In this consultation response, respondents also pointed out that coverage for existing initiatives for Open Finance-type arrangements will inevitably be partial, limiting the potential benefits.
b. ***Open Comms*** – Without government intervention, DSIT do not think industry would take forward the development of a voluntary scheme in the foreseeable future, that affords consumers easy access to, and the

[214] FCA (March 2021): "Open finance – feedback statement"

sharing of their data. Intervention is required to ensure that relevant data sets and types are in open formats, and to standards which would allow effective use by third-party providers. In the Open Communications consultation response, Ofcom said that they did not envisage that industry would introduce customer data mobility voluntarily.[215]

241. Further information on the monitoring and evaluation plans for the bill will be included in the bill-wide impact assessment.

Secondary regulations

242. The day-to-day impact of the legislation lies in the regulations made by the powers in secondary legislation, rather than the powers themselves. Individual scheme outcomes can and should be measured with monitoring and evaluation plans in accompanying secondary legislation. Each Smart Data scheme should have plans for a full Post Implementation Review, in line with HMT Green Book, HMT Magenta Book and The Better Regulation Framework guidance. This will include process evaluations, to check how the schemes are being implemented to improve the implementation of future reforms, and impact evaluations, to assess the scale of effects caused by the planned changes, compared to the initial ambition of the measure.

243. A 5-year review and publication of a report are already required by law (unless appropriate not to do so) and this is undertaken where the secondary regulations have a +/- £5million (net annualised) regulatory effect on business.[216] This would consider the objectives of the legislation, an assessment of whether those objectives remain appropriate and, if they do, an assessment of the extent to which they could be achieved in another way which involves less onerous regulatory provision. A 5-year review would be effective at monitoring implementation of the scheme and the initial impacts, however the appraisal periods in the analysis above suggest that further monitoring and evaluation should be considered by policy makers after 5 years, to capture the long term effects of secondary legislation.

244. It would not be appropriate to evaluate the impact of the Smart Sata schemes against the indicative estimates that have been included in this Impact Assessment. Rather the impacts analysed through the implementation of the secondary legislation should be used for the purpose of monitoring and evaluation.

[215] Ofcom (July 2021): "Update on Open Communications: Enabling people to share data with innovative services"

[216] Sections 28 to 32 (secondary legislation: duty to review) of the Small Business, Enterprise and Employment Act 2015 ("SBEEA")

245. Monitoring and Evaluation can be used to test whether any of the risks identified above have materialised after secondary legislation.

246. As mentioned above, there is the risk that a mandatory data scheme could reduce competition. Enforcement and monitoring plans for non-compliance and anti-competitive behaviour are required to be considered at secondary legislation level. Particular attention in the M&E should be given to whether there have been any competition effects due to the legislation and whether a potential enforcer and monitoring plans are effective at ensuring there is no non-compliance and anti-competitive behaviour. A metric to measure this anti-competitive behaviour would be to look at the market share of firms before and after a Smart Data scheme. Another metric would be to analyse how prices and mark-ups have changed after a Smart Data scheme.

247. Due to the potential risk of poor security, monitoring and evaluation at the secondary legislation stage should cover security and potential consumer harm. If a scheme contains accreditation of firms, the evaluation should test whether this has aided consumers from harm and is clear. The evaluation should also test whether, as a result of increased data sharing, there is misuse of customer data. This could be measured in extra nuisance calls or if there is any unwelcome selling-on of data.

248. As indicated in the indicative analysis above, estimations assume a certain number of uptakes by consumers of Smart Data schemes. Without consumer uptake, net benefits will be lower. This could be measured by the number of total users of each scheme. This metric can also be used to indicate whether there is a lack of demand for Smart Data services.

249. The evaluation should test whether the benefits of the Smart Data scheme have outweighed the costs, this could be through interviewing consumers, ATPS and data holders and analysing what benefits and costs they have had due to the Smart Data scheme,

250. Benefits to consumers, security risks and other metrics could be difficult to quantify to a scheme level scale, therefore future policy makers should consider a mixed methods approach that considers both quantitative and qualitative data (i.e. from interviews and focus groups) when evaluating the scheme.

251. Given the nature of the Smart Data schemes, particular attention should be given to the potential differences in impacts for vulnerable consumers and those with protected characteristics.

252. To ensure cohesion and appropriate alignment with the sector-specific monitoring and evaluation work, DBT will aim to provide a coordinating

function. However, this is dependant, on resourcing and business planning outcomes.

253. There are existing monitoring and evaluation plans for Open Banking which future Smart Data schemes could look to as an exemplar. The OBIE have a Customer Evaluation Framework to monitor and evaluate live Open Banking-enabled products and services by their six main outcome areas, for all regulated ATPs. The OBIE monitoring function undertook a detailed and evidence-based review of individual CMA 9 API performances throughout 2020. Where performance was not sufficiently robust, individual improvement plans were designed and actioned. As a result, OBIE "saw a significant uplift in conformance, availability, and performance" during this time.[217]

[217] Open Banking (2020): "Annual Report 2020"

Annex A – Further Smart Data benefits information

Summary

254. As discussed in the secondary regulation benefits section of this Impact Assessment, multiple groups could see benefits from the introduction of Smart Data and this annex provides additional detail on these benefits.

Detail on benefits

255. These benefits have not been collated as they may double count; across most of these benefits it is not possible to estimate an accurate counterfactual in the absence of Smart Data as the design and progress of schemes across multiple sectors is uncertain. For example, it is uncertain how many, and which, sectors would implement Smart Data schemes in the absence of Smart Data.

Customer benefits

Time savings – additional information

256. Smart Data schemes can help customers reduce the time spent signing up for accounts, making service comparisons or receiving tailored advice. This will likely reduce search costs and time spent by both customers and advisors.[218] To provide an indication of the time savings by using services detailed in 'Customer benefits – Time and effort savings', if we assume that 20 minutes[219] of time can be saved for the 5 million Open Banking users[220] in 2022 and their time is valued between £4.54[221] and £13 an hour,[222] this would be between a £7.5 million and £21.7 million per annum benefit.

257. Using an alternative method, and assuming the rate of FinTech adoption is a suitable proxy for the rate of Smart Data adoption and applying this to the 91% of adults in the UK who used the internet at least weekly in 2019,[223] an approximate £43 - £123 million of benefit could be realised for

[218] DWP (October 2019): Pensions Bill 2019 IA

[219] There is no evidential basis behind this figure. It has been used to provide an indication of the amount of time and the benefits of saving time using Smart Data tools and services, such as comparison or advice tools. More detail on Open Banking use cases can be found in 'Open Banking use cases' box.

[220] Open Banking (February 2022): "Open banking passes the 5 million users milestone"

[221] Hour of leisure time assessed at £4.54

[222] Assuming £13 hourly average compensation as used by the FCA in "Pension reforms – proposed changes to our rules and guidance"

[223] ONS (August 2019): "Internet access – households and individuals, Great Britain: 2019"

customers saving 20 minutes[224] a year from using Smart Data services.[225] [226] [227] This figure considers the potential impact only on individual consumers but small businesses using Smart Data would likely realise similar benefits, however similar quantitative estimates for the size of the potential benefit to small businesses are not available.

Informed decision making – additional information

258. It is expected that when customers are better informed, through the sharing of their data, they will make different consumption choices. These different choices will result in benefits not captured by loyalty penalty estimates. Customers being informed does not necessarily mean they will choose the cheapest deal, but customers may choose the deal that is best suited to them.

259. For example, Ofcom found that 71% of people who changed mobile phone provider in the last 12 months did not consider mobile phone signal strength as a factor when making this decision. Of these respondents, 20% stated this was because it did not occur to them, 9% said they did not know where to find the information, and 7% said it was too much hassle.[228] Smart Data could help make wider product and performance data such as this more easily available. Similar non-price factors are also important to businesses, and this type of comparable information may not be available for them without Smart Data.[229]

260. A 2018 study by uSwitch found phone owners were paying for an extra 3.4GB of data every month. It states that 21% of customers don't know their data allowance (26% for over-55s), and 36% do not keep track of their data usage.[230] Sky Mobile, a service which lets customers save up unused data for later, found that customers saved £36 million by rolling over 5.4 million GB of unused data between March and May 2020.[231]

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[224] There is no evidence behind this figure, it has instead been used to provide an indication of the amount of time and the benefits of saving time using Smart Data tools and services, such as comparison or advice tools. More detail on Open Banking use cases can be found in 'Open Banking use cases' box.

[225] Methodology: Applying this to the *44,105,545* adults in UK yields a digitally active population of *40,136,046*. Applying the UK's fintech adoption rate of 71% to the digitally active population yields *28,496,593* Fintech adopters in the UK. If it is assumed Smart Data schemes increase time savings for Fintech adopters in the UK (as a proxy for digitally engaged consumers) to 20 minutes a year, using an hour of leisure valued at £4.54 (see footnote 183) ranging to time valued at £13 an hour (see footnote 184), this results in an approximate *£43* to *£123 million* per annum benefit.

[226] TAG Data Book (Nov 2021)

[227] Assuming £13 hourly average compensation as used by the FCA in "Pension reforms – proposed changes to our rules and guidance"

[228] Ofcom (August 2020) "Open Communications: Enabling people to share data with innovative services"

[229] Ofcom (August 2020) "Open Communications: Enabling people to share data with innovative services"

[230] Mobile Marketing (February 2018): UK mobile users wasting 143 GB of data every month, uSwitch study finds

[231] What Mobile article (2020): "Sky Mobile offers its customers the chance to rollover unused mobile data"

261. ‘Improved financial decision-making’ already has 45 live to market Open Banking-enabled products and services, making it the joint largest outcome area that the OBIE’s Customer Evaluation Framework monitors. This is matched by expanded payment choice (45) and followed by better borrowing (26) products and services.[232] Improved financial decision-making represented 43% of agents of regulated ATPs offering Open Banking enabled products and services in October 2023[233].

262. In Ofcom’s consultation response, data holder BT suggested that Open Communications could help people to make decisions on a range of metrics that are important to them, rather than focusing on price and speed or coverage.[234]

Cost savings from increased switching[235] – additional information

263. A 2020 Ofcom survey on the consumer use of third-party intermediaries (TPIs)[236] found that 61% of adults used a price comparison website (PCW) in 2019. Including 48% for insurance, 30% for energy and 28% for communication services. The BEIS Public Attitudes Tracker found that in Winter 2022, 22% of people responsible for purchasing broadband had switched provider or contract in the last 12 months and 20% of people had switched their mobile phone contract[237]. This shows that there is an appetite amongst consumers to seek alternative deals, but there is more to be done to help highlight the benefits of switching. Open Banking has already seen the emergence of services which analyse transactions in real-time, identify services use and prompt consumers to investigate where future savings could be made. Future Smart data schemes will help to provide more accurate information than PCWs and would help to facilitate switching across sectors based on more personalised comparisons.

Support for vulnerable consumers – additional information

264. Consumer insights from Ofcom’s qualitative studies[238] also showed that Account aggregators (who bring together information about the accounts and products held with different providers in one place) could also benefit those with power of attorney.

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[232] Open Banking (October 2023): The Open Banking Impact Report

[233] Open Banking (October 2023): The Open Banking Impact Report

[234] Ofcom (July 2021): “Update on Open Communications: Enabling people to share data with innovative services”

[235] This is a transfer benefit from provider to customer.

[236] Ofcom (August 2020): “Open Communications 2020 survey”

[237] BEIS (March 2023): BEIS Public Attitudes Tracker: Consumer Issues Winter 2022

[238] Ofcom (August 2020) “Open Communications: Enabling people to share data with innovative services”

265. Combining Open Banking data with data from other sectors opens up new opportunities. For example, a person in financial difficulty could share their utilities or wider financial data to improve debt management services and improve the effectiveness of bill management and payment scheduling apps currently operational under Open Banking.

Increased competition[239] – additional information

266. Smart Data is expected to increase the number of active, engaged consumers. As the midata literature review[240] 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".

Consumers are expected to make better decisions when informed by their data. It is assumed this will result in consumers accessing services form a greater number of data holders, compared to a select few incumbent data holders with high market power.

Increased security

267. Without Smart Data schemes providing consumers with a secure way to share data, consumers currently use less secure alternatives. As discussed previously, "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 behalf.

268. Emerging evidence from Open Banking shows that verifiable bank statement data shared via APIs is a key selling point for those wanting to verify incomes or make credit decisions.[241]

269. HMRC's Open Banking-enabled tax payment options significantly reduces the risk of fraud, customer error and reduces transaction cost, and demonstrates the level of security Smart Data provides.[242]

270. In the US, where the use of standardised APIs is not mandatory, screen scraping still takes place. A survey by the Financial Data Exchange found that between 65 to 85 million US consumers still use services in banking that rely on unregulated and less secure data sharing methods, including screen scraping and password sharing.[243]

[239] This is a transfer benefit from provider to customer.

[240] As referenced in BIS (2012): "Order making power for midata"

[241] Decision Engine - NestEgg

[242] Open Banking (January 2022): "UK Open Banking marks fourth year milestone with over 4 million users"

[243] Financial Data Exchange (2020): Consumer Access to Financial Records

ATP benefits

271. Similar growth is being seen for ATPs across the UK. London-based Plend received significant seed funding of £40million, marking the largest seed funding round in the UK Open Banking market to date,[244] and Clearscore secured $200 million of investment to ease consumer access to credit through Open Banking.[245]

272. ATP services such as digital comparison tools and PCWs are already in use in sectors such as communications and finance, and Smart Data is expected to assist further innovation, growth and market engagement for these services. According to Ofcom's consultation response, digital comparison tools were among the groups who were generally supportive of intervention to establish an Open Communications initiative and agreed that they could use the data to innovate. [246]

Access to new data – additional information

273. The ability to access new data creates valuable new markets and reduces the cost of market access. Mobile price comparison and switching website BillMonitor have argued that accessing customer and product data is currently expensive and difficult, and felt that Open Communications could help them to provide a more personalised service that would benefits customers.[247]

274. For example, in response to the Open Communications consultation G.Network said that there's demand for better information about broadband reliability, speed and service quality among customers which third parties could provide if they had access to better data.[248] Some other examples of data ATPs could have access to with Open Communications include information about users' current packages, expenditure on communications services and their usage.[249]

[244] Plend (2023): PLEND ANNOUNCES £40M INVESTMENT TO FUEL GROWTH IN 2023 AND END FINANCIAL EXCLUSION

[245] Open Banking (June 2021): "June 2021 Monthly Highlights"

[246] Ofcom (July 2021): "Update on Open Communications: Enabling people to share data with innovative services"

[247] Ofcom (July 2021): "Update on Open Communications: Enabling people to share data with innovative services"

[248] Ofcom (July 2021): "Update on Open Communications: Enabling people to share data with innovative services"

[249] Ofcom (July 2021): "Update on Open Communications: Enabling people to share data with innovative services"

275. FCA's call for input set out various use cases for Open Finance, and detailed the data that would need to be shared to facilitate them. Some examples of the data not currently available in the Finance sector included:[250]

- Access to information about product features, consumer circumstances and consumer use of product across sectors.
- ATP access to all customers' savings, investments and debt and related information in a consistent format in the investment sector.
- ATP access to all pension and payment information in one place in the pension sector.
- Mortgage product and payment history data, data on payment/current/savings account and other income in the mortgage sector.

New and improved services – additional information

276. Smart Data schemes allow the opportunity for ATPs to create new innovative services and improve existing services. Examples have already been seen in Open Banking, with ATPs offering innovative new tools to help customers with financial management, simplifying everyday tasks and supporting vulnerable customers.

Increased competition[251] – additional information

277. Smart Data schemes in further sectors beyond Banking will increase opportunities for ATPs to compete with existing data holders and other third-party providers.

278. In 2018, the Competition and Markets Authority (CMA) recommended that Ofcom should seek to increase the engagement and awareness of consumers by pushing forward with implementing Smart Data, as a remedy for tackling the loyalty penalty in the mobile and broadband markets. Giving customers the support and tools to make active and informed choices ensures that businesses are put under continued and greater competitive pressure.[252]

Broaden customer reach to Government – additional information

279. In the finance sector, Smart Data could enable HRMC to expand the range of financial data and tools used to support the delivery of their services, providing simpler and safer services for customers.

280. Smart data also provides the opportunity for sectors such as communications to aid Government, for example by providing better quality

[250] FCA (December 2019): "Call for Input: Open Finance"

[251] This is potentially a transfer benefit between existing and new ATPs.

[252] CMA (December 2018): "Tackling the loyalty penalty"

data about communications infrastructure and coverage to help inform Government policy.

281. HMRC told the OBIE "Effective collaboration to turn Open Banking data into services that are good to use and offer real value to customers and businesses. HMRC wants to be a big part of that, and we will be inviting interest in a number of Open Banking-related proofs of concept, such as splitting VAT at source."[253]

Increased productivity – additional information

282. A full methodology explanation and set of assumptions for Frontier Economics analysis into the benefits of Smart Data to small and micro businesses and ATPs[254]can be found in their research note.[255] Sensitivity tests were used to demonstrate the range of potential benefits, as there remains uncertainty about potential use cases and uptake of these services across the sectors. For ATPs, the estimates focus on potential productivity gains and growth in the number of ATPs.

Data holder benefits

283. Despite the CMA only mandating 9 banks to partake in Open Banking, as of October 2024 there are 88account providers, with 79 having got involved voluntarily in order to take advantage of the benefits.[256]

284. The opportunity to access wider product and performance data gives data holders the opportunity to improve their customer offer and increase their market reach. Ofcom expect that Open Communications could offer similar scope for innovation in the communications sector and augment existing Open Banking services, for example enabling new attentive, predictive, and tailored services.[257]

285. Ofcom highlighted that Open Communications could help smaller providers grow and compete more effectively.[258] [259] For example, better comparison of non-price factors (e.g. broadband speed and reliability) could help raise awareness amongst consumers of the quality of providers,

[253] Open Banking Insight

[254] BEIS commissioned research (July 2022): Estimating benefits of Smart Data to small and micro firms and third party providers

[255] BEIS commissioned research (July 2022): Estimating benefits of Smart Data to small and micro firms and third party providers

[256] OBL (Accessed October 2024): https://www.openbanking.org.uk/news/the-obie-highlights-november-2021/Regulated providers

[257] Ofcom (August 2020) "Open Communications: Enabling people to share data with innovative services"

[258] This is a transfer benefit from existing larger providers to new entrants.

[259] Ofcom (August 2020) "Open Communications: Enabling people to share data with innovative services"

especially lesser-known providers. Evidence from further Ofcom research[260] suggests that when businesses have switched to smaller providers, they have higher satisfaction rates and tend not to switch back, demonstrating there is value for businesses in moving away from the major communications providers.

286. Improvements to technical infrastructure to facilitate data sharing can also benefit data holders for wider business use, helping generate further revenue. Examples of wider benefits include supply chain optimisation and reduced cost of serving individual data access requests.

287. A McKinsey paper reported that financial data sharing helps avoid multiple manual data handoffs that lead to errors, rework, and less efficient outcomes, and it significantly reduces the costs associated with remediating bad customer relationship management data, currently estimated at 20% of a typical financial institution's income.[261]

288. Real-time access to customer data can support advanced techniques to identify and reduce costs related to fraud. Sharing data provides more evidence and clues with which to flag suspicious activity and this can help data holders build out their predictive modelling of fraud and catch cases earlier.[262]

289. Before schemes come into effect, relevant stakeholders will have the opportunity to respond to regulator consultations. This will ensure that a range of stakeholders will have the opportunity to help shape the design of future schemes. This will be of particular interest to data holders who will be directly affected by the regulations.

290. Fixed broadband provider BT said they strongly support Open Communications" and will consider using Open Communications as an ATP to offer new services or enhance their existing offerings. BT said they believe that Open Communications can support informing customers to make better purchase decisions and noted the rules and regulatory framework that should be in place to mitigate any risks. Data holder G.Network were also broadly supportive of the idea of Open Communications according to the consultation response, subject to Ofcom first considering other options.[263] Respondents to the FCA's call for inputs on

[260] Ofcom (Apr 2018): "SMEs Communication Needs", Slides 23 and 24

[261] McKinsey & Company (June 2021): "Financial data unbound: The value of open data for individuals and institutions"

[262] McKinsey & Company (June 2021): "Financial data unbound: The value of open data for individuals and institutions"

[263] Ofcom (July 2021): "Update on Open Communications: Enabling people to share data with innovative services"

Open Finance noted the potential for wider firm benefits, including cross-sectoral use cases, cross-selling and opportunities to charge for use/services. Some respondents also highlighted the benefits to firms and their customers of increased digitisation and overall modernisation of systems.[264]

Wider societal benefits

Value of the data economy – additional information

291. Ctrl-Shift's report on data mobility that found that data mobility has the potential to increase GDP by £27.8bn[265] (£34.7.0bn uprated to 2024 prices), quantified by estimating the value of data mobility for a sector as a proportion of GDP, adjusting this for the impact of that sector and applying the adjusted impact rate to economy-wide GDP. This quantification for data mobility is anchored in the financial services sector, and highlights the value of the benefits that have been set out above.

292. In 2020, the UK's data economy represented 4% of GDP[266] and 5% of the workforce[267] being employed in the sector,[268] making it the largest data market in Europe.

International fintech advantage – additional information

293. We expect trade benefits as a result of the UK furthering its leading approach towards data portability with initiatives like Smart Data. Building on Open Banking's enabling role for UK fintech, Smart Data provides a further opportunity to extend the UK's tech leadership into further sectors, for example finance, communications and energy sectors, and attract further foreign investment.

294. The UK being a global leader in Open Banking and potentially future Smart Data schemes also provides greater scope for regulatory compatibility between the UK and other countries. We have seen similar effects with the UK's FinTech bridge initiative. These are a series of bilateral agreements with APAC countries that are designed to help build closer and stronger collaboration between different countries governments, financial regulators and Fintech industries. In 2020the UK has agreed Fintech bridges with Singapore, South Korea, China, Hong Kong, and Australia.[269]

[264] FCA (March 2021): "Open Finance: Feedback Statement"

[265] Ctrl Shift (2018): Data Mobility: The personal data portability growth opportunity for the UK economy "

[266] Data Landscape (2020):The European data market monitoring tool ". Using January 2020 UK GDP 2,229,094m (GDP) and UK data economy value EUR 88,816m (indicator 5.2).

[267] Defined as "data professional"

[268] Data Landscape (2020): The European data market monitoring tool (indicator 1.2)

[269]S&P Global (Oct, 2020): "UK aims to shape global fintech regulation as it bridges EU divorce"

295. This provides an opportunity for UK firms with Smart Data expertise to more easily expand internationally and strengthen the UK's global trade position. On the other hand, this will also provide an opportunity for international firms to expand into the UK, bringing both foreign direct investment and increased competition for domestic firms with knock-on benefits for customers.

Increased competition – additional information

296. Increased competition could lead indirectly to a reduced need for heavier handed regulation, such as price caps. This was suggested as a likely outcome of Midata by Nobel Prize winning economist Richard Thaler.[270]

Allocative efficiency – additional information

297. More transparency in markets as a consequence of enhanced data mobility will lead to increased allocative efficiency. One example of this could be more accurate credit scores as a result of Open Banking, data sharing from wider finance sectors or from across other sectors such as transport and employment. This will allow for credit to be priced closer to or equal to marginal cost. The Centre for Economics and Business Research, an economic consultancy, estimates that this effect could contribute an additional £1bn to UK GDP annually.[271]

298. We can expect further allocative efficiency as Smart Data extends beyond payment account data (as planned under Open Finance) and enables financial institutions to consider information like energy and communications data (as planned under midata and Open Communications) to better determine a consumer's credit worthiness.

Better-informed research and policymaking – additional information

299. Smart Data will lead to standardised datasets with more consistent data quality. A secondary use of these improved and more accessible datasets could be by the public sector and academics, for example in research. Access to aggregated anonymised data sets using Smart Data schemes could lead to richer consumer research insights and a more sophisticated evidence base for policy making in a variety of areas.

300. There is currently no requirement under Open Banking to share data directly with the public sector or universities, but alternative data sharing arrangements have been made. For example, the University of Edinburgh

[270] Richard Thaler, as quoted in BIS (April 2011): "Better Choices Better Deals"

[271] Trustpilot (February 2018): Open Banking expected to contribute over £1 Billion annually to UK economy supporting 17,000 new jobs

has collaborated with partners to create the Global Open Finance Centre of Excellence (GOFCoE), which has partnered with Natwest and Royal Bank of Scotland to provide insights into the financial impact of disruptions, such as those that accompanied Covid-19. This is made possible by combining real-time anonymised banking data with data from digital accountancy software, based on bilateral legal agreements with banks. These new detailed insights offer the possibility of more timely, accurate and data-driven policymaking by government in supporting businesses.[272]

Other wider society benefits – additional information

301. Indirect benefits from better-informed customers could include increasing energy efficiency and healthier choices, leading to carbon savings and improved health outcomes.

302. Research[273] has highlighted large potential for Smart Data to support environmental policies, particularly when extended to include industry data. Example use cases include effective management of carbon footprints in supply chains, apps to help consumers identify the most efficient port to charge their electrics vehicle and 'Sustainability capital' enabling Fintech investors to prioritise environmentally sustainable projects across the economy, including ATPs in the Smart Data ecosystem.

[272] Crowdfund Insider (June 2020):UKRI awards £22.5m in funding to Edinburgh's Global Open Finance Centre of Excellence Fintech Hub

[273] Icebreaker One (April 2021): "How can Smart Data help unlock a Green Economy"

Annex B – Further Smart Data costs information

Summary

303. As discussed in the secondary regulation costs section of this Impact Assessment, various groups could see costs from the introduction of Smart Data and this annex provides additional detail on these costs.

Detail on costs

304. The following costs have not been collated as many would double count. Across most of these costs it is also not possible to estimate an accurate counterfactual as the design and progress of schemes across multiple sectors is uncertain. For example, it is uncertain how much industry would spend on related IT upgrades and other data programmes in the absence of Smart Data.

Cost to regulators and scheme administrators – additional information

305. Example activities requiring funding include:

A. Establishing and running a delivery team

B. Ongoing compliance monitoring

C. Developing and updating standards (e.g. technical specifications)

D. Regulation and enforcement action

306. These costs will initially fall on the sector regulator, or any other administrator, who will be named in the secondary regulations as responsible for specific roles, for example determining who is eligible to participate in the scheme, subject to requirements set out in the regulations. It is likely that existing regulators would lead on regulation and enforcement. More detail on this and potential impacts on the justice system will be included in a Justice Impact Test at the secondary regulations stage, when the specifics on potential breaches and the related enforcement mechanisms are known.

307. The scale of costs and who bears the burden will depend on the specific funding model pursued in secondary regulations, and for example how the charges and levy will apply to data holders and ATPs. Examples could include (and are not mutually exclusive):

a. Levy on data holders – e.g. to fund an implementation team, taking a similar approach to Open Banking.
b. Charges on ATPs – e.g. for accreditation or as a ‘membership fee’ for participation in the ecosystem

308. We would expect the 'implementation costs' for future schemes to be lower than those incurred by Open Banking as a result of lessons from this scheme, as noted when OBIE responded to Ofcom's consultation[274] directly and argued against using Open Banking as a benchmark for costing Open Communications, in part due to several potential technical differences. It stated that Open Communications would not require costly payment initiation standards or functionality (including the high-cost security, performance and resilience framework associated with this), or the real time information that was a necessity for Open Banking. In addition, the OBIE stated that some of the costs attributed to Open Banking included costs associated with the upgrading of core technology assets, which banks would have had to undertake in any scenario. The OBIE cost should therefore be taken as a rough high estimate for future schemes.

309. Certain 'implementation costs' may also be for activities that are currently being carried out by firms and trade bodies pursuing voluntary data sharing schemes. As a result, part of the overall cost may be considered as a transfer, rather than an additional cost for some industry players.

310. As discussed throughout this IA, due to several uncertainties, it is not possible to isolate or predict the costs of potential future Smart Data schemes. However, in an effort to give an indication of the costs that could arise from further data sharing schemes, BEIS conducted a survey to collect more evidence on the costs of Open Banking, the first mandated data sharing scheme. More detail on this survey can be found in 'Primary Legislation Costs'.

311. BEIS asked the survey respondents their views on the cost of future data sharing schemes in a variety of sectors. In particular we asked whether they believed each scheme would cost more, less or the same as Open Banking.

312. One respondent said that in markets such as savings, mortgages and consumer credit they would expect synergies with Open Banking and therefore reduced implementation costs.

313. One respondent explained that market variability in the insurance market could potentially make it costly to deliver.

Cost to data holders – *additional information*

[274] Ofcom (August 2020): "Open Communications: Enabling people to share data with innovative services"

314. It is important to distinguish between:
    a. Costs that would have been incurred by the business anyway, for example upgrades to IT systems and technical infrastructure;
    b. Smart Data specific costs.

315. There is limited evidence which makes this distinction, however BEIS' Open Banking survey asked respondents about the costs they faced that they think would have been incurred in the absence of Open Banking. One respondent said that of the implementation and ongoing costs they faced as a result of Open Banking, they do believe they would have faced a proportion of these costs in the absence of Open Banking. They explained that without Open Banking they would need to use legacy screen-scraping technology to acquire the data needed for their business model.

316. Wider work is also already being done within sectors to help facilitate and ensure the interoperability of Smart Data. Open Energy is an example where progress has been made and investment into infrastructure could be built upon in the energy sector.

317. In the Finance sector, FCA have proposed rules for pension providers to help deliver Pensions Dashboards, which requires pension providers to be ready to receive requests to find pensions and search records for data matches, as well as supply specified information for consumers to view on their chosen dashboard,[275] changes which would likely be made under an Open Pensions scheme. FCA are also currently leading several projects which aim to ensure customers are empowered, better informed and have access to the best data.[276]

318. In the telecoms sector and as a result of the European Electronic Communications Code (EECC), Ofcom has implemented regulatory rules for communications providers to help protect end-user rights. Some of the new requirements which go some way to delivering changes which would likely be required for Open Communications include:[277]
    - Increasing the information that providers must publish on their websites to promote transparency and help customers make more informed choices.
    - Internet and phone providers must make information available to qualifying third parties, free of charge and in open data formats. This is to provide comparison tools and ensuring consumers have clear and comparable information.
    - All customer billing information must now be "up-to-date", and customers are to be advised when a service has been fully used up

[275] FCA (Feb 2022): "FCA proposes rules for pension providers to help deliver Pensions Dashboards"
[276] FCA financial promotions rules, review wholesale data markets, new consumer duty.
[277] Ofcom (October 2020): "Implementation of the European Electronic Communications Code (EECC)"

and of the charges they will incur. This aims to help customers manage their consumption and avoid bill shock.

319. In Ofcom's Open Communications consultation document[278] they highlight the areas of expected costs to data holders.[279] In response to this consultation,[280] the OBIE argued against using Open Banking as a benchmark for costing Open Communications, in part due to several potential technical differences.

320. BT estimated that Open Communications would cost them between £40m-£100m (including 'implementation costs'), representing 0.19-0.47% of BT Group revenue in 2021, £21.3bn.[281] Assuming this is attributable to the six biggest telecommunications providers in the UK,[282] the total cost for the biggest telecommunications providers would be between £240m-£600m. However, large incumbent data holders may overstate potential costs, given that they are likely to bear the burden of the cost (as with the CMA9) and these schemes could diminish their market power.

321. The IA for the Pensions Dashboard primary legislation estimates that the total fixed implementation costs to the Pensions Dashboard programme for private sector pension schemes will be £200 million - £580 million over ten years, not including micro schemes.

322. In relation to the costs of Open Finance, FCA said that the implementation of Open Finance should be proportionate, phased and ideally driven by consideration of credible consumer propositions and use-cases, and they do not think a 'big bang' approach to Open Finance is feasible or desirable.[283]

323. BEIS' Open Banking survey asked the Open Banking directory to estimate their total one-off implementation costs. All of the CMA9 firms who responded estimated costs within the range of £110m to £150m. Other small and micro firms estimated costs to be ranging from £100,000 to £1.49m. One medium firm estimated their total one-off cost as being between £3m to £4.9m, and a globally large firm estimated their costs between £10m to £19.9m.

[278] Ofcom (August 2020): "Open Communications: Enabling people to share data with innovative services"
[279] This includes the costs of generating and sharing Open Communications data (e.g. API development) and the costs of enabling and providing services using Open Communications data (e.g. registering as an accredited provider)
[280] Ofcom (August 2020): "Open Communications: Enabling people to share data with innovative services"
[281] BT (2021) – BT Group Annual Report 2021
[282] Statista (May 2020) – Vodafone, Sky, 3, O2, BT, and EE
[283] FCA (March 2021): "Open finance – feedback statement"

324. BEIS also asked the Open Banking directory about their annual ongoing costs. All of the CMA9 firms who responded to the survey provided estimated costs of between £10m to £12m, and the majority of small and micro firms provided estimates between £10,000 to £75,000. A medium firm estimated their ongoing costs to be between £450,000 to £749,000, and a globally large firm estimated their costs between £750,000 to £1.49m.

325. The following section provides a more detailed break down of the total cost to data holders. The costs provided are not an exhaustive list of the costs that might be incurred, for example the evidence from banking also shows there may be resource and customer engagement costs beyond this.

Familiarisation costs – additional information

326. This could include the costs of staff to read and understand regulation, staff training, external advice, dissemination and policy negotiation.

327. Smart Data primary legislation is expected to be relatively brief. As such, the costs are negligible. Further analysis should be conducted to understand the familiarisation costs associated with secondary legislation.

Technical and system costs – additional information

328. Data holders may also need to undertake IT or organisational changes to ensure consumers' data can be appropriately shared. This is expected to be particularly relevant to large incumbent data holders, as smaller incumbent data holders and new entrants to be better adapted to handling Smart Data, assuming they have greater flexibility and ability to adapt their IT infrastructure accordingly or already have the required infrastructure in place.

329. BEIS' Open Banking survey found that technical and systems costs, for a large CMA9 firm with c.9 million customers, was c.£65m as a result of technology implementation. This firm also agreed that changes made to implement Open Banking had benefitted their organisation outside of Open Banking, as it has been a catalyst for them to become more API enabled and to re-use APIs in digital journeys. A micro AISP estimated technical and system costs to be around £20,000, this included the costs to implement and maintain their API connection and developer time to work with the API.

330. Other large CMA9 firms provided estimates for the cost of building or contracting out a dedicated interface, one firm estimated over £15m, another c.£85m. This firm provided their dedicated interface directly, without using a TSP. A small AISP and PISP estimated this cost to be between £100,000 and £149,000.

Ongoing costs – additional information

331. The midata impact assessment analysis[284] collated evidence on the retail, personal current accounts, energy and mobile contracts markets, and estimated implementation and ongoing compliance cost to business (separate estimates are not included) ranges from £1.3 million pa for energy, up to £1.9 million pa for mobile contracts. However, as noted with the benefits previously, these estimates are from 2012 and likely outdated so should be considered as a lower bound estimate.

332. Some ongoing costs that data holders may face include the maintenance and running of IT infrastructure, the costs of secure data transfers, and database consolidation. Looking at BEIS' Open Banking survey, some examples of ongoing costs faced by data holders include the cost to monitor and upgrade dedicated interfaces. One CMA9 firm estimated this cost as c.£250,000, another as £8m. Another key identified cost was the cost of authorisation to participate in Open Banking, the majority of respondents said these ongoing costs were over £10,000 per annum, with a medium AISP estimating it costs them £20,000 per annum and explained that this is split by £10,000 towards FCA licensing and £19,000 for PII insurance.

333. Respondents of the survey also identified some other ongoing cost areas as the cost of acquisitions, marketing, product design, communication with ATPs, and call centre/communications costs. One AISP estimated their call centre and communications costs to be £200,000.

Costs to ATPs

Familiarisation costs – additional information

334. ATPs may also face some familiarisation costs to participate in Smart Data schemes, they must first understand and familiarise themselves with Smart Data regulatory requirements. This could include the costs of staff to read and understand regulation, staff training, external advice, dissemination and policy negotiation.

335. As discussed previously, Smart Data primary legislation is expected to be relatively brief. As such, the costs are negligible. Further analysis should be conducted to understand the understand the familiarisation costs associated with expectedly larger secondary legislation.

Accreditation – additional information

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

336. ‘Accreditation’ communicates to all parties in the system that the TPP has met specific requirements set out in the regulations. It is envisaged accreditation will apply primarily to ATPs, although there could be flexibility for the requirements to apply to data holders. The accreditation criteria and those that must comply with this will depend on sector specific schemes and will be set out in secondary regulations.

Setting up and running technical infrastructure – additional information

337. To access and use customer data, ATPs will also face costs to set up and run the required technical infrastructure to facilitate secure data access. This could include the costs to build and monitor any connections or integrations to data holder APIs or interfaces.

338. BEIS’ Open Banking survey asked respondents about the costs they faced to build or contract out the building of a dedicated interface. One TSP estimated this cost them within the range of £50,000 to £99,000. The same organisation estimated their ongoing costs to monitor and upgrade a dedicated interface for Open Banking was between £20,000 and £39,000.

Premium APIs – additional information

339. There would an opportunity for data holders to make data available beyond mandated data fields, charging ATPs for access to these ‘premium APIs’. This has already emerged in the banking sector and is an effective way to stimulate further innovation, while also offering a mechanism for data holders to recoup some of their costs from implementing Smart Data. Developments like this will further stimulate new ATP business models and the design of consumer-focused services. Given the risk that charging for additional functionality could develop into barriers to market access, this will require ongoing assessment as commercial negotiations evolve and this new market of services matures.