BANK OF ENGLAND

The Bank of England's Response to the Department for Business, Energy & Industrial Strategy

Consultation paper on Smart Data: putting consumers in control of their data and enabling innovation

August 2019

Executive Summary

The Bank of England welcomes the findings of the Smart Data review and the proposals in this consultation paper, which seek to put consumers in control of their data and enable innovation.

In June 2019, the Bank published a review on the future of finance, which highlighted the importance of data portability for easing frictions in the financial system. In its response to that review, the Bank proposed an open data platform, which would empower small businesses and individuals to harness the power of their data to improve access to more diverse and competitive sources of finance.

The concept of the open data platform proposed by the Bank aligns with the conclusions in the Smart Data review. The Bank is fully supportive of the proposals in the consultation paper. The Bank's research suggests that these proposals will support inclusion and innovation in financial services, while giving consumers greater control of their data.

To achieve a smart data economy, the Bank recommends that Government pursues a standardised approach to data sharing across a wide range of markets and across Government departments. A fully-interoperable API-based data sharing platform across the whole economy could empower consumers to harness the full value of their data. And with the right governance and permissions, it would put consumers in control of how and when they use their data. The Bank agrees with the idea of a cross-sector Smart Data Function and suggests that, given it will have responsibility for overseeing the safe and effective movement of consumer data, it sits within or works closely with the Information Commissioner's Office.

The Bank's research for the Future of Finance review revealed the importance of a clear liability framework and dispute resolution mechanism to handle the incidence of data loss. It also highlighted the potential for tokenisation to facilitate data sharing of only the appropriate elements of an individual's data in a time-limited manner. And it suggested that success would rely on user-friendly customer authentication, including different levels of security to reflect the sensitivity of the data being shared.

Introduction

1. The Bank of England welcomes the findings of the Smart Data review and the proposals in this consultation paper, which seek to put consumers in control of their data and enable innovation.

2. Although the Bank doesn't have a direct consumer interest, its mission is to maintain monetary and financial stability, an important part of which is diversity in the financial system. Through its policy committees, it seeks to enable competition in the financial system and empower businesses by supporting the provision of productive finance in the UK economy.

3. This response offers views from the Bank's perspective of the financial services industry. It draws heavily from the independent review on the Future of Finance and the Bank's response, published in June 2019. [1] And it is based in large part on the research carried out for those publications, as well as the Bank's subsequent engagement with industry. The Bank consents to the publication of this response by the Department for Business, Energy and Industrial Strategy.

4. In its June publications on the future of finance, the Bank committed to:

    - Share its findings with Government on how small businesses harness the power of their own data, by developing the concept of a portable credit file, to give greater access to more diverse and competitive financing options, including for global trade.

    - Respond to the Government's Smart Data Review consultation with recommendations for how data standards and technology can promote an open platform for finance and deliver greater choice and keener pricing for businesses and individuals.

    - Champion the Legal Entity Identifier (LEI) as a globally recognised and unique identifier for all businesses in the UK, including integrating the LEI in the Bank's upgraded payments (real-time gross settlement, or RTGS) service and mandating its use in payment messages. [2]

Changes already taking place in the economy

5. The nature of commerce is changing as new technologies shape a new economy.[3] An increasing amount of activity is taking place online as platforms enable direct connections between people

[1] *Future of finance: review on the outlook for the financial system and what it means for the Bank of England* (June 2019) and *"New economy, new finance, new Bank: the Bank of England's response to the van Steenis review on the future of finance"* (June 2019)
[2] RTGS Renewal Programme
[3] *"Enable, empower, ensure: a new finance for the new economy"*, Mark Carney (June 2019)

and businesses globally. These online interactions are generating vast quantities of data that is being used to improve and personalise services.

6. Facilitated by these online platforms, there has been also been a shift away from asset ownership amongst some cohorts of the economy and a sharing economy has developed.

7. The nature of work is changing too. In the UK, three million people worked in the gig economy over the past year, and nearly a third of British workers are self-employed. Work through platforms can produce irregular incomes, which may not be adequately served by traditional finance and lending models. And the decline in asset ownership excludes some cohorts from accessing certain financial services, such as secured lending.

8. New data and analytical techniques can help overcome these barriers and might help explain the success of alternative lenders in recent years. Fintechs around the world are finding ways to streamline on-boarding and verification of individuals and small businesses through new sources of data. And others are using it to enrich credit scoring and open up lending to previously underserved parts of the economy.

The importance of data for accessing financial services

9. Technology firms are already demonstrating the value of gathering and analysing data at scale to understand trends and predict demand. And innovative businesses are using novel sources and big data to understand customers better and deliver a more tailored service or product that can be more cost-effective. A world where households and businesses are able to control and move their information as they choose will promote competition and choice.

10. Open Banking is already beginning to change how the UK financial system uses data. Though so far focused on a limited set of products, it has demonstrated the potential for sharing data securely around the financial system in a standardised way through an Application Programming Interface (API). Authorised providers now enable customers to pull their transaction data securely and almost in real-time from different current accounts into one application, helping them to manage their finances better.

11. Expanding the sources of data that finance could access, such as data held at insurance and utilities companies, and search, ratings and social media data could help build richer credit files. Linking public sources such as the Passport Office, DVLA, HMRC and Companies House could improve the underwriting process for a loan by removing the inefficiencies involved in identity verification. And allowing customers to show their credit files to different providers will increase choice in the market. Opening access to this data using common messaging and data standards should eliminate a significant barrier to entry.

The Bank of England's proposal for an open data platform

12. Small and medium-sized enterprises (SMEs) are an engine of growth in the UK, employing 60% of the private sector workforce and contributing 50% of UK GDP. But because of poor information, many small businesses struggle to access the finance they need. Survey evidence suggests that more than 50% of SMEs consider only one provider when seeking a loan and 6 in 10 of those who would like to borrow resort to personal funds rather than corporate finance

13. The Bank can leverage its role at the heart of the UK payments system to support change. We support the principles of 'Open Finance' and can draw on our experience in promoting data standards and improved digital identification. In doing so, we could help create an open platform to boost access to finance for small businesses and choice for households. And while it is for Government and business to build such a platform, the Bank can offer its support, research and analysis to help deliver it.

14. By bringing together a global identity standard and a safe, secure and permissioned method of sharing information, this open platform could harness novel data sources and advanced analytics to deliver a portable credit file for SMEs. This would enable SMEs to shop around for financial services, giving them greater choice and better access to productive finance.

15. Identification of businesses and verification of their data is crucial to make this work. The LEI was designed in response to the financial crisis, as a unique way of identifying financial entities. But in recent years, there has been increasing interest in its potential as a unique corporate identifier for businesses across the economy.

16. Our research suggests that, if adopted widely, a globally recognised and unique corporate identifier like the LEI could vastly increase the value of data for companies. The Bank's upgraded payments settlement (RTGS) service is designed to use the LEI and will require its use in payment messages. The LEI could also be integrated into the open data platform, enabling businesses to be identified easily and to move around the financial system seamlessly. They could pull their data together under a single identity, into a portable credit file to shop around for the finance they need. And because of global recognition, it will help businesses access finance for cross-border trade. Government could play a key role here by promoting wider adoption of the LEI beyond the financial system, including by taking steps to ensure all business are provided with an LEI when they register with Companies House.[4]

[4] *The Bank of England's response to the Consultation Paper on options to enhance the role of Companies House and increase the transparency of UK corporate entities* (August 2019)

Box: The Bank of England's proposal for an Open Platform for SME finance[5]

An open platform could improve SME access to finance

Building on the UK's Open Banking initiative, it would be based on three principles:

- Digital identity verification
- Data standards enabling portability and robust credit scoring
- A platform and API with permissioned sharing, governed by a clear framework

It could:

- Enable SMEs to gather their data from different sources to build up a richer credit file
- Allow novel data sources to be used in credit scoring decisions
- Reduce the information gap and lower the barrier to entry in the market for SME lending
- Give SMEs access to more diverse and competitive finance options

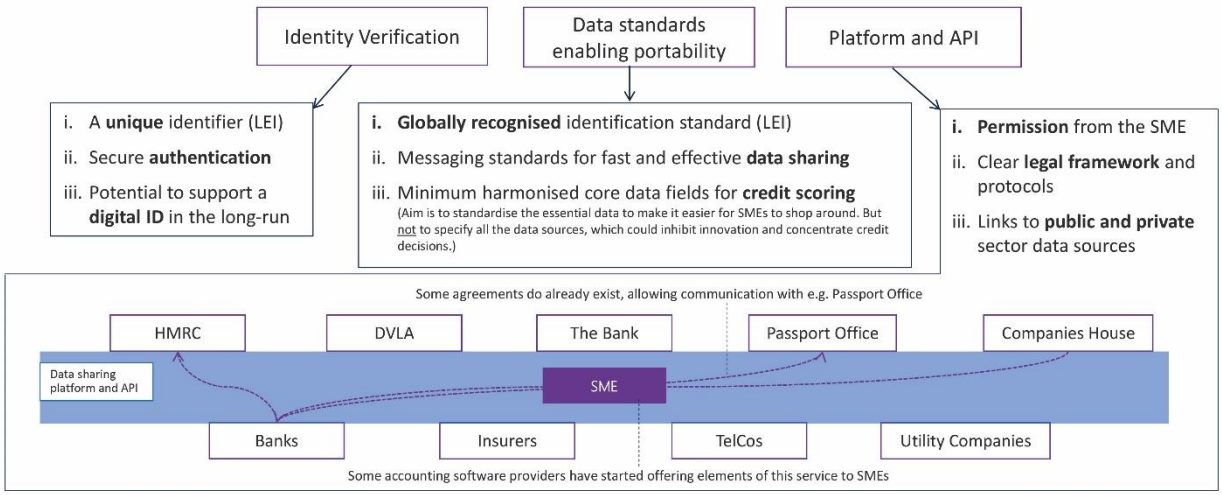
The components of an open platform for SME finance

Legal Entity Identifiers (LEI) and digital identification could make it easier for lenders to accurately identify borrowers to a trade and speed up invoice and trade finance.

Richer, portable, credit files could increase the information available, reduce credit risk and unlock working capital, invoice and trade finance for SMEs building a strong financial track record.

Together, they could speed up the on-boarding process and enable SMEs to shop around, encouraging competition between bank and non-bank lenders.

How the open platform model could work



[5] *An open platform for SME Finance* (June 2019)

17. The same platform has the potential to deliver a personal financial passport for individuals. By enabling individuals to pull together their data from different sources across the economy, it would empower consumers to harness the full value of their data. Adoption would put into practice the recommendations from Professor Furman's Digital Competition Expert Panel report on how to extract value from data, promote competition and give consumers control of their data. This personal data mobility would allow consumers to move their personal information from one platform to another, to avoid lock-in and open the door to new services.

18. To deliver this open data platform would require a set of standards for identification, authentication and communication. Standardised APIs would make different data sources interoperable, enabling households and businesses to pull their data from many different nodes with a single application. To ensure trust, the transferred data would need to be encrypted appropriately and permissioned by the rightful data owner (the household or business). Integration with government data sources, such as the passport office, DVLA, DWP and HMRC would significantly improve digital identification and reduce frictions in authentication, supporting credit decisions and unlocking efficiencies in all markets.

19. An open data platform that gave consumers the ability to compile their data instantly, from public and private sources, in a safe and permissioned manner, would unlock a truly smart data economy. And because it would rely on moving data between the rightful data owners, rather than replicating it or storing it in all in a single location, it has the potential to be secure, trusted and cost-effective.

Response to Consultation questions

3. Are there any further actions we should take to enable consumers to benefit from Smart Data in regulated markets?

5. What other roles might industry find it useful for Government to perform in addition to it acting as a facilitator for Smart Data?

20. The Bank is fully supportive of the move towards open data in the regulated markets. Although in its early days, Open Banking has offered a glimpse of the innovation and competition benefits of enabling customers to share their data with authorised third party providers. And adoption is likely to grow as the protocols mature and the offering expands to cover more services. There should be equivalent benefits over time from enabling Smart Data in the energy, pensions and communications markets.

21. But Government could go further. The most valuable gains to consumers will be when they can compile data from different sources with ease. To do that requires the APIs in different markets to be standardised, making them interoperable. Even with a standardised API, Open Banking has

shown that frictions can arise in the way different data providers have integrated it to their systems, so it may be worth considering the merits of standardising the interface too. Our research suggests the greater degree of standardisation in the Indian Unified Payments Interface (UPI) model has made it considerably easier for innovators to keep up with system upgrades at each of the providers.

22. Our research also suggests that the real gains will come from integrating government data sources, such as the passport office, DVLA, DWP and HMRC using the same APIs and standards. Access to these 'golden source' data would significantly improve digital identification and reduce frictions in authentication, unlocking efficiencies in all markets. [6]

23. An Open Data platform that gave consumers the ability to compile their data instantly, from public and private sources, in a safe and permissioned manner, would unlock a truly smart data economy. And because it would rely on moving data between the rightful data owners, rather than replicating it or storing it in all in a single location, it has the potential to be secure, trusted and cost-effective.

6. Do you agree that we should establish a cross-sector Smart Data Function with the proposed responsibilities set out above?

7. What would be the best form for the Smart Data Function to take? Should it be, for example, a new body, part of an existing body or in some other form?

24. The Bank is fully supportive of a cross-sector Smart Data Function. It will allow for coordination across markets and achieving a standardised system of APIs that all work together. It also makes sense for the Smart Data function to have a role in authorising Third-Party Providers (TPPs) and coordinating upgrades to the APIs and cyber security standards.

25. In addition, our research suggests that a critical role for a Smart Data Function such as this will be to establish and oversee a dispute resolution mechanism to handle data errors or loss. Establishing a clear liability framework will be key to its success and for these reasons, there will need to be a close link with the Information Commissioner's Office (ICO). If the Smart Data initiative is successful, it will create a platform for all consumer data, such that the Smart Data Function might even be best placed within the ICO.

[6] Government could also promote wider adoption of the LEI amongst businesses beyond the financial sector, including by taking steps to ensure businesses are provided with an LEI when they register at Companies House. Companies House could even become an issuer of LEIs. See *The Bank of England's response to the Consultation Paper on options to enhance the role of Companies House and increase the transparency of UK corporate entities* (August 2019)

9. What other actions could the Government or regulators take to support the use of data and innovative services to improve outcomes for vulnerable consumers?

26. Enabling customers to make use of a wider array of data can improve financial inclusion. Rather than relying on traditional methods, those with 'thin' credit files might be able to build a richer picture of their creditworthiness by, for example, demonstrating reliable shopping habits or reliable payment of bills and subscriptions.

27. And while many fear that further digitalisation of services will exclude large parts of society, our research highlighted that improving digital authentication could also improve access for vulnerable customers. For example, the use of biometric authentication on smart phones rather than passwords has considerable benefits for those with deteriorating memories or learning difficulties.

12. Do you agree these protections for when TPPs use Smart Data are needed? Are there others we should consider?

28. The Bank fully agrees with these protections. Our research highlighted the importance of a clear liability framework and a dispute resolution mechanism, particularly with the potential for incidents involving large data loss by relatively small TPPs. It may require a compensation scheme into which all TPPs contribute, although that might in itself raise the barriers to entry and innovation.

29. Our research also suggested there was a demand for time-limited access to data to maintain consumer control and trust. The length of time should vary by use, by sensitivity of the data and should depend on the ease of authentication. If, for example, authentication is as simple and seamless as glancing at a smart phone, then consumers will be empowered to grant access for minutes at a time.

30. This might best be operationalised in a tokenised manner, so that a consumer shares relevant elements of their data, but not all of it. For example, consumers should be able to demonstrate their age, but not given away their full date of birth; and give their postcode without their full address, where the narrower data is sufficient. A data 'token' could be encrypted end-to-end and shared via the API, with a built-in expiration date to protect consumer interests.

31. It is worth considering an additional protection that addresses consumers' interest in sharing the minimum data required in any given interaction. In order to prevent an outcome where consumers are pressured into giving up more data than they need to, there may need to be an expectation that TPPs request the minimum data needed or demonstrate what the data will be used for.