HM Treasury

Data sharing and open data in banking:

response to the call for evidence

March 2015

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1   Introduction

Background

1.1 At Autumn Statement 2014 the government published the report <u>Data Sharing and Open Data for Banks</u> written by the Open Data Institute and Fingleton Associates, and committed to launch a Call for Evidence in early 2015 on how best to deliver an open standard for application programming interfaces (APIs) in UK banking and to ask whether more open data in banking could benefit consumers.

1.2 The government published its <u>Call for Evidence on Data Sharing and Open Data in Banking</u> on 25 January 2015, inviting views on a number of the recommendations set out in the ODI / Fingleton Associates report.

1.3 The call for evidence was open for a period of four weeks, closing on 25 February 2015. The government received over 40 responses to the call for evidence from a variety of stakeholders spanning the financial services industry, consumer and business groups and the fintech community. The government is grateful to all contributors.

1.4 This document summarises the responses to the call for evidence, and explains the actions the government will take to deliver an open API standard in UK banking. It also explains how the government will take forward work on how more open data in banking can benefit customers.

Data sharing and open data

1.5 Application programming interfaces, or APIs, allow two pieces of software to interact with each other. In banking, APIs can be used to enable financial technology (fintech) firms to make use of customers' bank data on their behalf and with their permission in innovative and helpful ways. For instance, through external bank APIs customers can make use of applications on their smartphones which allow them to see clearly how much money they spend on food, and how their spending on food fluctuates through the course of a month or year.

1.6 Open data refers to data that can be used and redistributed by anyone for free. In banking, open data can be used to improve the ability of challenger banks or alternative finance providers to make effective decisions about who to lend money to, or enable comparison applications to make more detailed and accurate assessments of how customers can save money.

1.7 The ODI / Fingleton Associates report explains that improving the ability of customers to share their bank data with third parties through external APIs, and increasing the quantity of data published by banks as open data, could provide a number of benefits to customers and to competition in UK banking.

1.8 The government launched its call for evidence on Data Sharing and Open Data in banking in order to consider how to maximise the potential for APIs and open data to drive more competition and improve consumer outcomes in UK banking, and to help the UK remain at the forefront of developments in financial technology and innovation.

2 Summary of responses

Open API standard

Benefits and risks of an open API standard

2.1 The first set of questions in the call for evidence invited views on the benefits and risks of an open API standard.

2.2 The vast majority of the respondents supported the development of an open API standard, and respondents agreed that there are many potential benefits of an open API standard in UK banking. The most commonly cited benefits were increased competition and innovation in banking, a greater degree of consumer choice in financial services, and the development of new and better services tailored to customers that can enhance the overall efficiency of banking. The government also repeatedly heard that an open API standard would result in customers feeling more empowered to engage with their banking or financial services.

2.3 However, many respondents also recognised that there are risks that could arise from an open API standard. One concern that was raised was the risk that an individual (to whom the data belongs) may not have meaningful control over the exchange of the data between third parties and financial institutions. Respondents from the technology industry and the banking industry cited risks around privacy of customers' data and the potential for fraudulent use of data. In line with this, the need for appropriate security and vetting systems for third parties was regularly mentioned in the submissions received. In addition, responses received from the payments and banking industries explained that an open API standard should avoid 'locking in' a set of standards which cannot be enhanced or restrict banks from their own innovations, and that it should be compatible with European legislation.

Development of an open API standard

2.4 The next set of questions in the call for evidence considered the process for the development of an open API standard.

2.5 The government asked what it could do to facilitate the development and adoption of an open API standard. The majority of respondents said that that the government has a key role to play in coordinating between the banking industry and the fintech community, and driving forward the design of the open API standard, particularly in relation to the development of the standards around data security and confidentiality. Respondents predominantly from the fintech community also explained that government has a role in helping to educate customers to understand the privacy and security issues surrounding an open API standard, and the steps that can be taken to mitigate those risks.

2.6 The government questioned who should play a role in the development of an open API standard, who should be able to make use of it and how it should be used. The government received responses suggesting various different institutions could be involved in the development of an open API standard. These include banks and other financial institutions; the British Standards Institute and International Standards Organisation; the Financial Conduct Authority; the Bank of England; the Information Commissioner's Office; the British Bankers' Association; the Payments Council; the European Banking Authority; data security experts; software developers; fintech businesses and the government. Submissions from the fintech and technology business said that the open API standard should be available to be used by everyone, subject to the appropriate vetting procedures, and not restricted to those who banks have

existing relationships with or can afford to pay for access. The banks agreed that appropriate security vetting procedures should be developed.

2.7 In response to the question on the cost of developing an open API standard, the government received a variety of estimates ranging from negligible costs to tens of millions of pounds. Several respondents from all industries explained that they were unsure of the cost of delivering an open API standard, or that it was difficult to predict how much it would cost, because much of the detail of the design of the open API standard remains to be agreed. Many respondents also highlighted that the costs were likely to vary greatly between institutions. Software and app developers, however, explained that costs may be lower than anticipated because some banks have already developed their own external APIs and so are not starting from a blank sheet of paper.

2.8 The government asked questions on how long it would take to deliver an open API standard. While there was a degree of variation in the responses, broadly respondents were in agreement that 1 to 2 years was a reasonable timescale to develop and deliver an open API standard in UK banking, although more in depth responses explained that the timescale for delivery would be clearer once the design specification of the open API standard is more defined.

2.9 The government also asked what issues would need to be considered in relation to data protection and security. Respondents highlighted that customers must at all times be in control of which third parties they grant access to their bank data and for how long, how that data can be used and the level of granularity of data that can be assessed. The banking industry and many technology firms said that third parties should be appropriately vetted before being able to access customer bank data, and a permissions list of authorisations and authentications should set out all approved third parties. One technology company added that the degree of access to customers' bank data could be tiered according to the level of security standards met by the third party.

2.10 The government invited views on the technical requirements an open API standard should meet and adhere to. Respondents put forward a number of recommendations, the most popular options involved such requirements as HTTP, JSON, XML, OAuth, REST5 and Cloud based architecture.

Open data in banking

Benefits, risks and issues to consider around more open data in banking

2.11 The government asked respondents to consider the benefits and risks of more open data in banking, the costs of publishing more open data in banking and issues around data protection and security of information.

2.12 Respondents highlighted a number of benefits from more open data in banking, most responses brought out the opportunity for banks and alternative finance providers to offer more products and services to bank customers. They also noted that customers will benefit from having more data available to them by enabling them to make better and more informed decisions about which banking products they would like and who they would like to bank with.

2.13 Respondents, particularly financial institutions, highlighted risks from publishing more open data in banking, largely around the security of data, and said that it may still be possible to identify individuals from anonymised or aggregated personal data. To address the risks, respondents said that steps should be taken to document and peer-review the types of data being published as open data, publish all requests for access to closed data as open data, and monitor repeated requests for information. Respondents also saw a role for government to educate customers about using open data in banking.

3   Government response

3.1 It is clear from the vast majority of responses received during the call for evidence that the benefits of an open API standard are numerous and widely recognised. The key benefits that were identified by respondents were an increase in consumer choice, more competition in banking and an enhanced process, experience and outcome for consumers. Respondents strongly emphasised their support for the delivery of an open API standard in UK banking.

3.2 While much of the detail of an open API standard is still to be agreed, it is evident that an open API standard can be designed in a way which meets requirements around data protection and security, and at reasonable cost. The majority of respondents also said that developing an open API standard to a timescale of 1 to 2 years would not be unreasonable.

3.3 Respondents from the financial industry and the technology industry were aware of the risks that an open API standard could bring to consumers such as data privacy and the possibility of fraudulent use. It was made clear, however, that these risks are largely addressed through existing data protection laws, and can be mitigated through detailed planning and meticulous scoping of the open API standard design.

3.4 Submissions to the call for evidence also made clear that the publication of more open data in banking can have benefits to customers and financial institutions, and help to boost competition. The government, however, notes that steps will need to be taken to ensure the appropriate degree of data security and protection to customers is maintained.

3.5 The government is therefore committing to **deliver an open API standard in UK banking, and will set out a detailed framework for the design of the open API standard by the end of 2015.** The government will work closely with banks and financial technology firms to take the design work forward and, as part of those discussions, will also take forward ideas to introduce more open data in banking for the benefit of customers.

3.6 Delivering an open API standard in UK banking will help to drive more competition in banking for the benefit of customers, and enable fintech firms to make use of bank data on behalf of customers in a variety of effective and creative ways. It will ensure that the UK remains a global hub and a world-leader for financial technology and innovation.

A List of respondents

A.1 The following list of organisations submitted responses to the call for evidence; some of the respondents listed below submitted joint responses.

Tripple Consulting

FIGO

Equens SE

Yodlee, Inc

Open Data Institute (ODI)

The Open Bank Project

SWIFT

The Law Society of Scotland

FDATA

Mydex

Ctrl-Shift

Association of Accounting Technicians

techUK

InnovateFinance

GLI Finance ltd

Runpath Digital ltd

Payments Council

Virgin Money

BSI

Loughborough University

118 188 Money

ICO

Equifax

Lloyds Banking Group

HSBC

Account Technologies

Capital One UK

Elixirr

Kapturo

RBS

BBA

Welsh Government

Vocalink

Sofort

Experian

Which?

Mule Soft

Barclays