Credit Information Market Study Interim Report

Annex 2: Credit reference agency competition

November 2022

Contents

1 Introduction and our approach

1. When competition is effective, it helps drive good outcomes for consumers. Effective competition includes the ability of credit information users (CIUs, also referred to as clients and lenders throughout this annex) to search and switch between suppliers which best meet their needs and prices being close to efficiently incurred costs. It also includes investment in innovation over time as suppliers seek to attract clients from their competitors through new products and services and more efficient delivery of existing services. More specifically, effective competition can be characterised by the following:

2. On the supply-side, firms seek to retain existing clients and attract new ones by:
   - providing services that meet clients' needs for prices that are close to costs
   - improving efficiency and passing on these benefits to clients
   - innovating and improving quality
   - not engaging in strategic behaviour that limits the degree of competitive rivalry between existing or prospective firms in the market

3. On the demand side, CIUs are able to:
   - identify their needs
   - access, assess, and act on information about which supplier(s) best meets their needs
   - gain and exercise buyer power if suppliers hold market power

4. There are specific characteristics regarding the provision of credit information which may mean that competition is not working well and are therefore relevant to our assessment. In particular, these include:
   - cost structures (high fixed costs with low marginal costs of provision)
   - data, a key input into the products and services CRAs provide, is governed by a set of rules prescribed by an exclusive set of market participants (SCOR)
   - there may be strong network effects which create incumbency advantages, such as minimum critical mass, or quality advantages from scale
   - CIUs in the market have a dual role as both purchasers and suppliers of credit performance data

5. The first three features above imply barriers to entry, and the fourth has the potential to significantly affect incentives that market participants face. They are therefore relevant to our competitive assessment.

6. Our analytical approach has been to explore the extent to which provision of and demand for credit information displays the characteristics of effective competition as outlined above.

7. Our evidence base comprises:
   - CRA information request responses
   - CISP[1] information request responses
   - financial data from CRAs and public sources of financial data

[1] Credit Information Service Providers provide credit information via online or app-based portals to consumers, for example ClearScore.

- CIU[2] information request responses
- quantitative survey responses from small CIUs (credit unions and high-cost short term credit providers)
- bi-laterals with a range of CRAs, CIUs and consumer and trade associations between 2019 and 2022

Sources of evidence

8. Throughout this annex we have drawn on a range of evidence to explore the questions above, including:

CRA information request responses

9. We requested information from the three large CRAs and three smaller firms which have credit reference agency permissions. Responses included details on CRAs' clients and data contributors, their involvement in procurement rounds and CIU switching barriers and rates. We also requested information on CRA business models, innovations and market developments. We asked the CRAs for their assessments of the competitive landscape, including examples of their competitive responses to market developments. We also sought information on the key barriers to entering and innovating in the sector and supplementary documents on, for example, strategic planning reports and client contracts.

CIS information request responses

10. We received responses to our information request from nine credit information service providers. This request sought to understand the business models of these providers, in particular: their products and services, and their pricing structures. It also sought to understand whether they can access CRA data on reasonable terms, who they view as their competitors, how they compete for consumers, and how consumers interact with their services.

Financial data

11. We analysed financial data from the three large CRAs, and three smaller firms with credit reference agency permissions. Here we requested a range of financial metrics over time – such as operational metrics, revenue and cost data, split between business and client segments.

CIU information request responses

12. We received responses from 30 CIUs, representing a range of different client types, including large banks and building societies, insurers, retail finance, credit card and high-cost credit providers. The request sought information on how CIUs choose CRAs, their ability to switch between providers, how they select and use CRA products and services, and the importance of these to their business models. We asked for CIUs' views on the quality of the CRA products and services (accuracy, timeliness, predictive power, reliability); details of procurement processes; and their ability to negotiate contracts with CRAs. We also requested information on their data sharing arrangements; the processes they have in place for checking data and the costs associated with providing data to CRAs. We sought CIU views on how they expected the market to evolve over time and the key innovations in the sector.

[2] Credit Information Users, who are CRAs' clients, for example a lender.

Survey to credit unions, HCSTC and HCC providers

13. We sent an online survey to trade associations for high-cost credit providers and for credit unions and asked them to distribute the survey to their members. We received responses from 33 credit unions, eight home collected credit providers and five high-cost short term credit providers. This survey sought to understand the factors that are important to smaller lenders when choosing a CRA, what products they purchase and their experience of these products. This ensures there is representation from a spectrum of CIUs to inform this study's findings.

Bi-laterals with a range of market participants

14. To supplement the information request responses, we met with a range of market participants. These included the large CRAs, six smaller providers with CRA permissions, other providers or potential providers of credit information, CIUs, consumer groups and trade associations. Regarding the CIUs we spoke with, we ensured representation by speaking to a range of CIUs – both by size and sector – for example, retail banks, insurance providers, monoline providers, credit unions and BNPL providers.

Structure of this Annex

15. This remainder of this annex is split into a further four chapters, as described below.

Chapter 2: Market overview

16. In this chapter we provide a description of credit information and the key features of the credit information market. We also identify and describe the key industry bodies in the sector. Finally, we outline the structure of the credit information sector, describing the products and market participants.

Chapter 3: Demand side analysis and CIUs' role in driving effective competition

17. In this chapter we describe the demand-side of the market. We have sought to understand:
    - the main profiles of CRAs' clients and the potential for differences in competitive outcomes between them
    - how procurement for CRAs' services occurs and the impact this has on outcomes and competitive constraints faced by the CRAs
    - the strength of competitive constraint from CIU switching, including from strategies that CIUs have adopted to increase their outside options and therefore their buyer power

18. Together, these allow us to form an assessment regarding the extent to which buyers (or segments of buyers) are likely to be able to drive effective competition among CRAs and whether there are segments of demand for which competition is unlikely to be working well.

Chapter 4: Nature and strength of competition between CRAs

19. In this chapter, we focus on describing how the three large CRAs compete, focusing on the creditworthiness product segment, which accounts for the majority of the revenue generated by the three large CRAs. We then explore features that result in a

concentrated market, and explore to what extent this is the result of harmful drivers (such as the strategic behaviour of firms). We also analyse whether CRAs' behaviour and the outcomes delivered (for example, on price, quality and innovation) are consistent with a healthy competitive dynamic. Finally, we conduct an assessment of the potential for coordinated conduct between the three large CRAs.

Chapter 5: Barriers to entry, expansion and innovation

20. In this chapter, we consider whether CRAs face barriers when entering or expanding in the credit information market and explore what this means for the structure of the market and how competition works in this market.

21. Secondly, we review examples of past entry in the credit information market to assess whether such barriers are surmountable or rather unduly blocking the competitive process.

22. Thirdly, we consider the barriers to expansion faced by smaller CRAs that operate in the credit information sector, exploring whether they can provide a credible alternative to the three large CRAs in the provision of products derived from credit performance data and then considering the barriers to expanding in the segments of the market that they operate – for example, in the provision of affordability and thin file solutions.

23. Finally, we identify barriers to innovation, particularly any barriers to adopting Open Banking and other new data sources.

2 Market overview

Introduction

24. In this chapter, we provide a description of credit information and the key features of this sector. We also identify and describe the key industry arrangements (SCOR and PoR) in the sector. Finally, we outline the structure of the credit information sector, describing the products and firms.

Credit information

25. While there is no prescribed definition of credit information,[3] it is generally regarded as information related to the 'financial standing' of individuals. It is typically sold by CRAs who have a relevant regulatory permission of providing credit references.

26. It may include:
    - information on a consumer's credit history and repayment patterns (namely, whether they are meeting their credit and other financial obligations) obtained via their lenders and other data contributors
    - current account turnover information
    - publicly available information such as insolvency and CCJ (County Court Judgment) registers

27. CRAs provide lenders with information about current and prospective borrowers, ranging from raw data which they collect about consumers, to predictive analytics about probability of default.[4] This improves the functioning of lending markets, which would otherwise suffer from issues well-documented in economic theory (such as moral hazard, adverse selection, and credit rationing) arising from asymmetric information.

28. The provision of, and demand for, credit information in lending markets has aimed to resolve certain market failures. For example, when credit information is not adequately shared between lenders, it can create a barrier to new entrants in lending markets, inhibit the effectiveness of existing challengers by restricting their ability to assess creditworthiness, and reduce the degree of competition between lenders[5]. More generally, these market failures are known as:
    - adverse selection
    - moral hazard
    - informational advantages to large lenders

29. *Adverse selection* – access to consumers' credit information can ease adverse selection problems by improving lenders' knowledge of applicants' creditworthiness and likelihood of default.[6] In the absence of this information, borrowers have greater

[3] The regulated activity of acting as a CRA is described as the 'furnishing of persons with information relevant to the financial standing of individuals or relevant recipients of credit is a specified kind of activity if the person has collected the information for that purpose' (Article 89B of the Consumer Credit (Regulated Activities) Order. There is no widely agreed definition of credit information. As such, we use this as the basis of how we define credit information, using a broad interpretation.

[4] CRAs also provide data to Credit Information Service Providers (CISPs), which are direct-to-consumer tools for checking and improving credit scores. CRA's services to CISPs and CISPs' services to consumers are covered in a separate annex.

[5] https://www.bankofengland.co.uk/-/media/boe/files/paper/2014/should-the-availability-of-uk-credit-data-be-improved

[6] Artashes Karapetyan & Bogdan Stacescu, 2014. "**Information Sharing and Information Acquisition in Credit Markets**," Review of Finance, European Finance Association, vol. 18(4), pages 1583-1615.

knowledge of their creditworthiness than lenders do, which exposes the lenders to greater risk, which would result in a lower supply of lending (credit rationing). With this information, lenders can better understand consumers' financial standing with other lenders to make an informed decision on their credit application and ensure that borrowers are offered appropriate credit products. It also allows for more effective assessment of the affordability of credit. In addition, with better understanding of individuals' credit risk, lenders can more effectively identify borrowers in different risk categories, and price their credit accordingly, thereby lowering credit rationing[7] in lending markets.

30. *Moral hazard* – the provision of credit information can engender borrower discipline by ensuring over-indebted borrowers are not provided with unsustainable credit and correct moral hazard problems such as becoming over-indebted by drawing credit simultaneously from many lenders[8]. This is because borrowers' incentives to repay increases when there is an exchange of credit information between lenders[9]. To avoid being pooled with lower-grade borrowers by other lenders, high-quality borrowers will try harder to avoid defaulting on their debt.

31. *Informational advantages* – accessibility of credit information may also improve competitive outcomes in lending markets. Information sharing can lead to large incumbent lenders losing some of their informational advantages over their competitors, thereby improving contestability of lending markets, as well as the allocation of credit in the economy. This improves competitive outcomes in lending markets, which in turn can lead to a greater volume of lending.

32. Reducing the effects of adverse selection, moral hazard and informational advantages can lead to more informed credit decisions and enhanced competition in the lending market, which should in turn lead to lower risk premia (and therefore lower lending rates) and a greater availability of credit.

33. The main clients of CRAs are lenders, but can also be, for example, insurance providers, telecoms and utilities companies. CRA revenues are closely linked with lending markets because their revenues typically derive from credit information searches performed by lenders. Therefore, in general, as the volume of lending decisions being made expands, so do the revenues of the three large CRAs.

34. Credit information is used as an input to support CIUs' decisions. A lender typically assesses a credit application using information provided by CRAs alongside information provided by the applicant. If the information about applicants is not consistent across CRAs, consumers might be potentially harmed (see Data Quality Annex) for more details). For example, if one CRA does not have sufficiently comprehensive data on the applicant's credit history, then a lender relying on the information provided by that CRA may open a credit line while the same lender would have not chosen to do so if a different CRA was used. This can result in harm in various forms. For example, mispricing of credit, under-supply of credit, and potentially overstretching the consumer if the consumer is unable to repay the debt.

35. Lender practices vary across the market. Lenders may differ in the number of CRAs used to search for information about their (prospective or existing) customers. Some lenders use a single CRA for a given application while others may request the credit

[7] Stiglitz, Joseph E., and Andrew Weiss. "Credit Rationing in Markets with Imperfect Information." *The American Economic Review*, vol. 71, no. 3, 1981, pp. 393–410. *JSTOR*, http://www.jstor.org/stable/1802787. Accessed 10 Nov. 2022.

[8] Brown, Martin and Jappelli, Tullio and Pagano, Marco, Information Sharing and Credit: Firm-Level Evidence from Transition Countries (April, 2008). ECGI - Finance Working Paper No. 201/2008, EFA 2007 Ljubljana Meetings Paper, Available at SSRN: https://ssrn.com/abstract=967485

[9] A. Jorge Padilla & Marco Pagano, 1999. "**Sharing Default Information as a Borrower Discipline Device**," CSEF Working Papers 21, Centre for Studies in Economics and Finance (CSEF), University of Naples, Italy.

information of an individual from more than one CRA. We determine the extent to which this practice, often referred to as a waterfall approach, is adopted by CRAs in this report's Data Quality Annex.

36. Lenders may also differ in the type of information requested and how this is used in decisioning processes. For example, a lender may obtain data on affordability from one CRA and data on credit risk from a different one. We have been told that few lenders rely solely on scores calculated by the CRAs, and that it is typical for lenders to use summary data provided by CRAs to inform their own credit scoring models. Some lenders combine data from more than one CRA to inform their own credit scoring model (ie "multi-bureau" scorecards).

37. The use of credit information varies also depending on the amount of information a CRA holds about an individual. For example, some lenders use a secondary CRA when the primary CRA does not hold data about a consumer, or their credit file is thin. Others may ask applicants for additional information if information is insufficient.

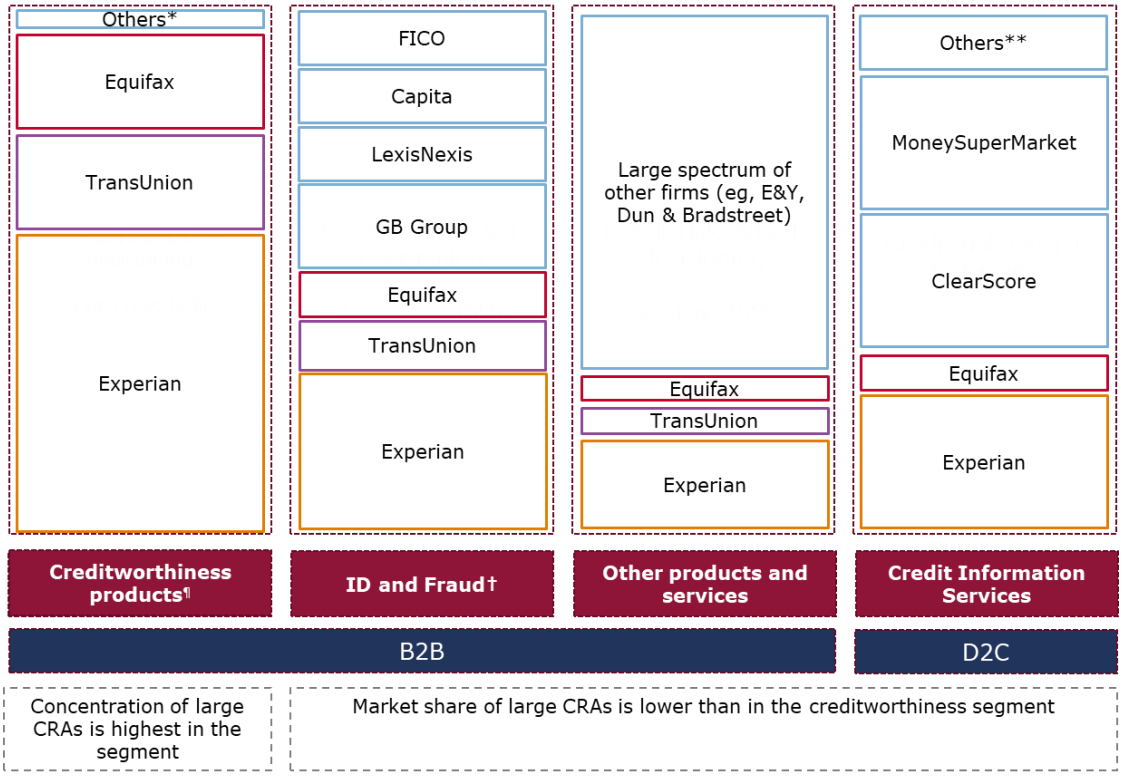
38. Credit information is also used to support account management, collections and debt recovery and to mitigate against fraud. Importantly this means it acts to increase borrowers' incentives to fulfil their repayment obligations. Whether consumers meet their repayment obligations will inform whether, and the terms on which, they can borrow in the future.

39. Before the pandemic, the expansion of the credit information market, specifically the provision of creditworthiness products, was driven by rising volumes both in the provision of creditworthiness products including affordability tools, but also ID and Fraud and other CRA products and services. The CRAs experienced a fall in revenue over the pandemic as the lending market contracted.

Structure of the market

40. There are broadly four categories of activities undertaken by the three large CRAs:
    - creditworthiness products (including credit performance data, products derived from credit performance data, affordability tools, thin file solutions and decisioning platforms) for business clients
    - ID and Fraud solutions for business clients
    - credit information services (CIS) for consumers
    - other products and services (that lie outside of the scope of this study)

Figure 1: Market share (%) for the four main categories of CRA activities



Source: FCA analysis based on information provided by firms

Note: Height of the boxes is based of the firm's share of revenue from this category.

*Others include Crediva, Credit Kudos, Aire
**Others include Credit Karma, checkmyfile, Totally Money, Affinion

"Other products and services" include consultancy, marketing services and commercial services

41. Creditworthiness products generate the greatest proportion of the three large CRAs' revenues followed by ID and fraud services, D2C Credit Information Services and other products and services such as consultancy and marketing.

Information sources used to create credit files and related products

42. From responses to our RFI and conversations with market participants, we believe there are broadly four types of information collected by CRAs which inform credit files and related products and services. These are identified and described in Table 1 below, as well as a short summary regarding which providers can access the information, and how it is typically used.

Table 1: Types of credit information and their use by CIUs

Information type	Description	Credit information providers that can access the data	Typical uses
Credit performance data	This includes details of individuals' credit accounts and their credit repayments (such as, the number of credit accounts; and account details such as dates the account was opened and closed, account balances, payments made on time, missed payments etc). We refer to this as credit performance data.	Only the **three large CRAs** collect this information from lenders at scale. They aggregate it and combine with other sources of data to provide as complete a picture as possible of individuals' financial standing.	**Assessing the credit risk** of individuals. **Assessing affordability**, to prevent or reduce over-indebtedness of borrowers. Taken together, these inform lending decisions and decisions related to managing credit accounts. Other uses include to: **verify identity** (fraud prevention); and **inform debt recovery strategies** (such as collection, recovery and tracing).
Current account data	Current account turnover (CATO)	**Only the three large CRAs** have access to this data. Lenders who provide personal current accounts l report this information to the large 3 CRAs.	This information underpins **the development of many affordability products and services** and can include products that provide an estimation of an individual's income and repayment capacity. There are a range of metrics derived from this data (such as, indebtedness to income indexes) that provide insights into an individual's ability to afford a loan.
	Open Banking	**All credit information providers** have the potential to access this data under the relevant regulatory permissions, with the customer's explicit consent. They (or partners) typically gain this during the credit application journey through various solutions provided to clients.	This information can inform **the development of affordability products and services** and, going forwards, support innovative product development. It is also used to **inform the assessment of credit risk for those with thin files** (sometimes in combination with other data sources). Lenders and CRAs may **also combine this information with credit performance data to improve their assessment of credit risk** for thick file individuals.
Public data	Publicly available data such as insolvency data, County Court Judgments etc.	Mostly available **to all credit information providers.** Notably, electoral roll data is only available to the three large CRAs via legislative provisions.	**Assessing credit risk:** typically this data is combined with credit performance data to enhance credit risk assessments. Also used to help **verify identity and support fraud prevention measures**.
Other data	Such as, CIFAS, ONS, PAF, rental data etc	Potentially available to **all credit information providers (the three large CRAs may have some advantages)**	

Source: FCA analysis based on information provided by firms

Creditworthiness products

43. Creditworthiness products (the first pillar in Figure 1) are the core business of the three large CRAs and includes all data, tools and products to assess creditworthiness – namely:
    - Raw and summarised credit performance data
    - tools and products derived from credit performance data to assess credit risk
    - affordability tools
    - decisioning platforms used by CIUs to access and analyse CRA data

44. Each of these product segments meet distinctive CIU needs and are unlikely to be substitutable from a CIU's perspective. Competition dynamics across these product groups also vary – in terms of the product features that drive CIUs' choice of provider (competition parameters), contestability of the sector, and the number of providers that operate.

45. These products support lenders' decisions about whether to approve a credit application, increase a credit limit or manage customer accounts. These products are typically complements, and lenders in particular will buy a combination of credit risk, affordability and decisioning products from the three large CRAs – although, not always from the same CRA.

46. We wanted to understand how important credit performance data is in the provision of creditworthiness products. This is because it may act as a barrier to entry to the market. As we show in Table 2 below,[10] it is chiefly necessary to collect credit performance data to operate in the provision of products that assess consumers' credit risk. Nevertheless, credit performance data is also relevant to the assessment of affordability. As only the three large CRAs collect credit performance data on any scale, they have a significant advantage in the provision of products derived from this data, and the relationships they establish with their clients can provide them with advantages over other firms when selling complementary products and services.

[10] Insights to inform this table were gathered from CRAs (large and small).

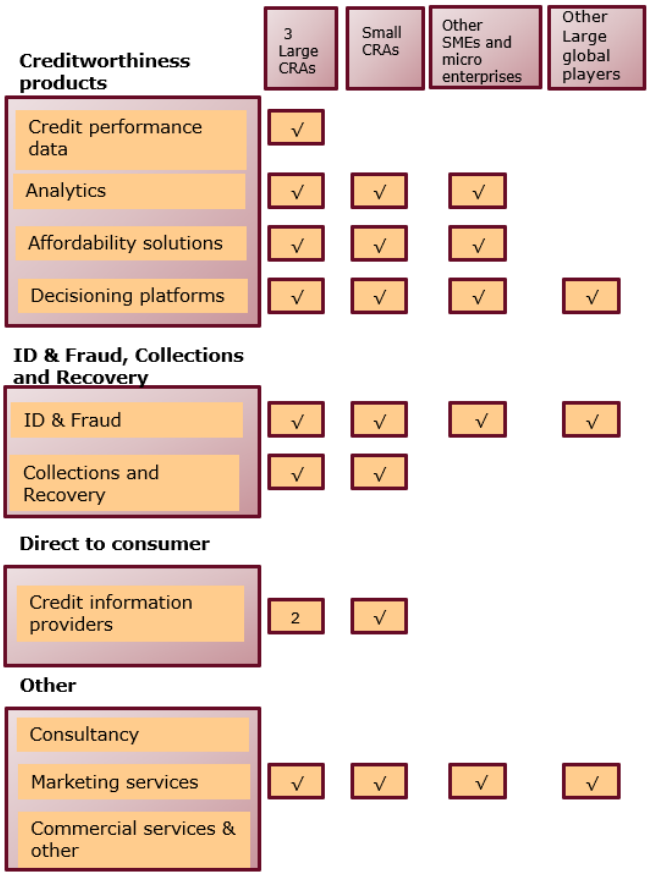
Table 2: The importance of access to credit performance data in the provision of products in the credit information market

Market segment	Description	Importance of access to credit performance data
The provision and aggregation of credit performance data to assess credit risk	This includes the provision of credit account information, such as the number of credit accounts an individual has, the dates they opened and closed each account, whether payments are up to date, the value of outstanding balances, and the number of payments in arrears. It is typically used to assess credit risk of those consumers with a credit history.	Necessary, and only the three large CRAs operate on any scale
The provision of products derived from credit performance data to assess credit risk (analytics)	These include products and tools derived from credit performance data, such as credit scores. Typically, these metrics are used in combination with credit performance data, to enhance the assessment of a consumer's credit risk throughout their credit journey, such as whether to approve a credit application or whether to increase a credit limit .	Important. However, firms outside of the three large CRAs wishing to provide derived metrics can get access through partnering with one of the three large CRAs or with lenders (explored further in Chapter 5).
Provision of affordability tools	Products that allow a lender to estimate or verify an individual's income and financial commitments (ie to carry out an affordability assessment). They may offer products such as indebtedness indexes, that provide insights into a person's ability to afford a loan.	Not necessary but can be used. There is a fringe of smaller CRAs offering tailored information on consumers' affordability, eg, using Open Banking data.
Provision of decisioning infrastructure and platforms	Decisioning platforms and their software are used to process credit performance data. This software allows the CIUs (typically a lender) to access credit performance data from a CRA. Increasingly, credit decisioning platforms are evolving to allow a CIU access to data from more than on CRA and wider than just credit performance data.	Not necessary. There are a range of small CRAs, software companies, and large global companies (FICCO) that operate in this segment. Access to credit performance data might be useful in order to develop decisioning tools but firms can access this through partnering with lenders and/ or CRAs.

Source: FCA analysis based on information provided by firms

48. The three large CRAs are the only providers active at any scale in the provision of credit performance data. For other products there are a range of other firms active.

Figure 3: Product groupings and providers



Source: FCA analysis based on information provided by firms

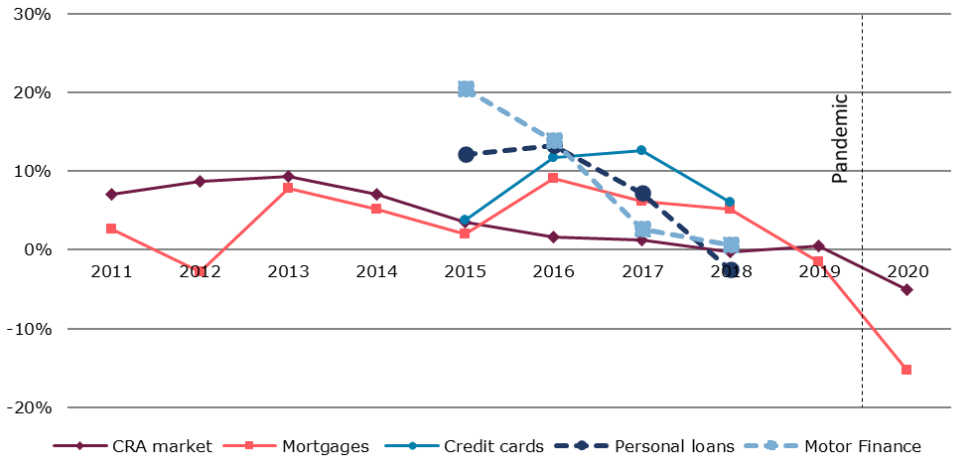
49. Between 2008 and 2019, the three large CRAs' UK revenues grew at a 3.3% annual rate on average,[11] considerably more than the average annual growth in the UK economy over the same period (1.3%) and the average annual growth in overall retail lending (1.7%).[12] However, the strong annual growth was reversed in 2020, with the revenues of the three large CRAs declining by -5% per year in 2020 alongside a drop in UK GDP of -9% and a slow-down in retail lending growth (1.3%).

50. CRA revenues are directly linked with lending markets due to the revenues they derive from creditworthiness product searches which are performed as part of routine lender processes. Figure 4 shows the average annual growth of the three large CRA revenues compared with the growth in number of credit agreements, both for mortgages and selected consumer credit products. The revenues move in step with the lending market; as lending declines, so do the revenues of the three large CRAs.

[11] CAGR over 2008-20 for the three large CRAs combined, based on revenues figures from UK statutory accounts

[12] Growth in stock of retail lending expressed in £ terms, published by the Bank of England, including mortgages and consumer credit - link

Figure 4: Growth in the CRA market correlates with the volume of credit agreements (2011-2020)



Source: UK statutory accounts, FCA data (product sales data for mortgages and CRA data for credit cards, personal loans and motor finance, updated on a best endeavour basis)

51. Credit agreements typically trigger a creditworthiness search with at least one of the CRAs. The CRAs have traditionally charged per search so we would expect to observe a correlation between CRAs' market growth and the volume of consumer credit agreements. Currently the number of credit agreements issued by lenders to consumers is our best proxy for detecting underlying trends in volume for the industry as a whole.

52. However, there is movement in the market to alternative pricing structures, such as cost per acquisition[13] (CPA) models, as growth in "soft" searches grows, for example as a result of consumers' use of credit comparison platforms (CCPs). These soft searches tend to be cheaper (and sometimes free) to conduct for CIUs but we have heard that CPA models tend to be priced higher (for each acquired search) in order to make up for foregone revenue (from the unacquired searches) as a result of this pricing structure shift. This means that the relationship between revenues and volumes of creditworthiness searches may become less defined moving forward.

53. Prior to the pandemic, the growth in revenues for the overall CRA market was driven by rising volumes both in the provision of creditworthiness products, but also ID and Fraud and other CRA products and services. In 2020, average revenues fell across the creditworthiness (-6.8%), ID and verification (-6.0%) and other (-14.4%) segments while the credit information services segment remained flat (-0.7%).

Other products and services provided by CRAs

ID and Fraud and Collection and Recovery solutions

54. ID and Fraud products account for a significant proportion of the three large CRAs revenue (around 20%). CIUs tend to buy ID and Fraud solutions in addition to creditworthiness data, tools and products, although they can also be purchased individually. It enables CIUs to verify the identity of prospective borrowers and ensure they are meeting regulatory requirements.

55. The large CRAs can draw on their credit performance data in order to provide these services, but other firms are able to provide ID and Fraud solutions using public and

[13] CPAs mean that CRAs only earn revenue when a consumer takes on credit, ie is acquired by the lender.

alternative data. As such, we see a larger number of innovative providers operating in this product segment, with the three large CRAs representing around 40-50% share of supply.

56. ID and Fraud products are a key area of growth for CRAs and other providers, as consumers increasingly move online and opportunities for fraud increase. We met with a range of stakeholders operating in these segments to ask them about how effectively they are able to compete with the three large CRAs. No significant concerns were raised. Given this and the larger number of firms operating in this area, we have not focused our competition analysis on this segment.

57. Collections and recoveries are services provided by CRAs that help provide insights to support consumers that are running into repayment difficulties, leveraging these consumers' credit information. It can help lenders intervene early and implement strategies to minimise losses as a result of potential default. Collection and recovery solutions appears to be a very small segment. These products and services represent less than 5% of the three large CRAs' revenue. As such we have not focused our competition analysis on this segment.

Credit Information Services

58. Credit Information Services are all services provided to individual consumers related to their credit information. These services include access to their credit information and a range of associated services, such as tools, information and advice to support their understanding of their credit file data, how to improve their credit score, and how to raise disputes with CRAs and lenders.

59. Access to credit performance data is necessary to provide this service to consumers. Two large CRAs provide a CIS offering themselves, whilst also providing data competitor credit information service providers. We discuss the provision of credit information services in a separate annex.

Other CRA products and services

60. The three large CRAs also provide a number of other client propositions, such as marketing products and services and consultancy services.

61. All three large CRAs provide consultancy services to lenders – these tend to support the development of credit risk strategies and modelling or design and implementation of IT infrastructure and decisioning platforms. From speaking to industry participants, there is a range of other consultancy services available to CIUs outside of the three large CRAs, such as large, mainstream consulting firms and the large CRAs see these as their direct competitors. Given there are a greater number of providers in this segment, and the service is not explicitly focused on the provision of traditional credit information, we have not considered these services further.

Credit reference agencies

62. In the UK, there are three large CRAs: Experian, Equifax and TransUnion. Experian is the only CRA listed in the UK and is the largest provider in the credit information sector.

63. There are around 20 smaller firms with CRA permissions. These firms account for a small share of traditional creditworthiness services and do not tend to directly compete with the three large CRAs.

64. These smaller, challenger CRAs operate on the fringe of the market. For example, many have been specialising in products derived from alternative data sources such as Open Banking. These mainly provide affordability insights, instead of traditional credit risk modelling (although Credit Kudos, recently acquired by Apple, offers an Open Banking-derived credit risk score). The reasons why challengers are focused on complementary services rather than traditional creditworthiness products are explained in Chapters 4 and 5.

65. Taken together the creditworthiness segment generates 47% of the three large CRAs' combined revenue. In addition, the three large CRAs enjoy almost all of the share of supply of these products, by revenue. Experian has the largest share of revenue among the three large CRAs by quite a margin. TransUnion and Equifax represent 16% and 15% of revenue respectively (2020) based on information in public accounts. We are unable to provide a breakdown of the size of each of the individual four creditworthiness segments. CRAs don't hold management or financial data at this level of granularity.

Market features

66. There are a number of market features which shape competition in the sector. These impact the competitive dynamics at play between incumbent CRAs and from challengers. Certain features have the potential to create barriers to entry into the credit information market. These are relevant to our competition analysis as they can in turn entrench large CRAs' incumbency if challengers struggle to gain market share, and is likely the reason we see a high degree of concentration in the credit information market.

Network effects

67. Network effects have a significant influence on credit information markets. CRAs operating in the sector need to collect data from as many clients (ie lenders) as possible for their credit performance data to be attractive to potential clients. The more lenders they attract, the more of this data they are then able to collect (which engenders better completeness and coverage of credit performance data).

68. A caveat of this is that many large lenders (eg tier 1 retail banks) tend to report to all three large CRAs regardless of whether they purchase their products, in order to boost data quality for all providers of credit – a mutually beneficial outcome.[14] Therefore network effects create a virtuous circle for CRAs that, in aggregate, contributes to the sector coalescing around a small number of large firms. Accordingly, CIUs have told us that they value completeness and coverage of credit performance data, which is facilitated by this network effect.

69. As a result, the provision of credit performance data is highly concentrated amongst the three large CRAs. This is consistent with privately provided, international credit information markets such as the US, Germany and Australia.

70. Network effects and evidence supporting the importance of network effects in the provision of credit information are explored further in Chapter 5.

High fixed costs

71. The activities involved in collecting and matching data, as well as investing in cyber security, mean that this sector is characterised by high fixed costs. While there are some material costs involved in client acquisition, the sector is also characterised by

[14] Many smaller lenders don't do this as there is a cost of supplying data to CRAs. This cost is small to larger lenders relative to the benefits from improved data quality.

relatively low marginal costs of provision to an existing client. This creates incentives for CRAs to seek to monetise the data as much as possible as a large proportion of marginal revenues contribute directly to fixed/common costs and profit.

72. High fixed costs can facilitate economies of scale advantages for large incumbents. This is explored further in Chapter 5.

Dual role of lenders

73. Although not unique, the credit information sector is unusual in that lenders (providers of mortgages, credit cards, loans, etc) and other data contributors (such as, insurers or non-financial services firms) have a dual relationship with CRAs. They are both:
    - contributors of data on their consumers' credit performance – providing information to the CRAs on how borrowers manage their credit agreements
    - users of credit information – they use credit information data, products and tools to assess the financial position of credit applicants

74. For new lenders, having access to CRA data is typically a pre-requisite for being able to enter and operate in lending markets. Such lenders often have no banking or other data to support their lending decisions. Here CRAs are able to provide data to new lenders in advance of them starting to submit data, although lenders must begin contributing data within a specified time period.

75. Increasingly we are seeing growth in the number of data contributors and CIUs from sectors other than lending. For example, landlords, telecoms and utility companies are increasingly contributing to and using credit information.

76. We do not consider this feature of the market to qualify it as a multi-sided market. Multi-sided markets are usually characterised by providers serving at least two distinct customer groups (which constitute different "sides" of the market). Many definitions of multi-sided markets also require indirect network effects to be present between these two (or more) customer groups. Since there are not distinct customer groups CRAs cater to, we do not consider the B2B credit information market to be multi-sided. In fact, direct network effects arise which benefit the same customer group, ie CIUs (lenders) who are also data contributors. We discuss these direct network effects in Chapter 5.

Principles of Reciprocity

77. SCOR was established by the UK finance industry in the 1990s, following discussion between lenders, trade associations and regulatory bodies regarding the use of consumer information when making credit decisions. At this time, it was decided a formalised approach to sharing consumer information was necessary, establishing clear guidelines on what data could be shared and for what purposes.

78. SCOR's membership is made up of the three large CRAs and a number of industry bodies who represent data contributors (among them, UK Finance, the FLA, the Consumer Credit Trade association as well as other trade bodies representing non-Financial Services industries). Currently there is no direct consumer interest representation within SCOR. Finally, SCOR is funded on an ad-hoc basis by its members.[15]

[15] POR, Section 11.11

79. Full SCOR membership is in principle open to other CRAs, however they must first demonstrate a certain scale of operation.[16] Hence there are firms which operate as CRAs (albeit on a small scale) that are prevented from being represented on SCOR.

80. POR's governing principle is that data is "shared only for the prevention of over-commitment, bad debt, fraud and money laundering, and to support debt recovery and debtor tracing, with the aim of promoting responsible lending". The reciprocity element of the rules states that "subscribers" (ie data contributors) may only receive credit information from CRAs at the level of information they contribute[17]. CRAs include the need for compliance with the POR in their contracts with lenders and other wholesale clients and data contributors.

81. The POR has evolved over time, to deal with new developments and to provide clarification in areas open to interpretation. For example, it developed rules in 2013 regarding the "pre-application process", ie what the permissible data sharing rules are with providers of pre-qualification services, and firms that may use this data. These rules were then again revised in 2017. The POR are highly detailed and complex, requiring a degree of specialist knowledge to interpret.

82. SCOR reviews issues referred to it by its members, as well as any legislative change relevant to its data sharing rules. It does not oversee all of the data shared by data contributors with CRAs (for example, it has no locus over public data sources), and notably CATO data is out of its scope.

83. SCOR meets at least twice yearly and on an ad-hoc basis. Decisions related to changes to the POR and associated documents, and to other material matters such as funding and membership must be agreed by voting members. For any other business, decisions are taken at the simple majority rule and each voting member of SCOR casts a single vote.[18]

84. It is likely that the presence of SCOR and their development and oversight of POR provides lenders with transparency about how their data contributions will be used and prevents lenders using data without first providing data contributions (mitigating free-riding). Ensuring CIUs can only access data equivalent to what they contribute is likely to incentivise CIUs to contribute, enriching data quality. It also likely provides lenders with assurance and confidence that any one firm is not being disadvantaged by contributing data which will be used by their competitors.

85. Taken together, oversight by SCOR is likely to translate into increased confidence and willingness of financial institutions to share their data with multiple CRAs, where otherwise they would not. There are wider benefits of increased sharing of consumer credit information. Improving lenders' access to information on consumers' credit history facilitates more accurate creditworthiness assessments and aids responsible lending decisions, ultimately ensuring a more efficient allocation of credit in retail lending markets, however, as noted above, the coverage of SCOR is incomplete.

[16] CRAs that are not of sufficient scale to be full members can join as 'niche market CRA' (as opposed to 'Mainstream' CRA), but this also has a minimum requirement. Minimum scale requirements and other requirements are listed in section 11.3 of the Principles of Reciprocity. Mainstream CRA must have a minimum of 75 "contributing members", ie data providers clients. Niche Market CRA must have a minimum of 20 contributing members, individually providing more than five thousand records.

[17] POR, page 3: "Data will be shared on the principle that subscribers receive the same credit performance level data that they contribute, and should contribute all such data available"

[18] POR, Section 11.9

Current Account Turnover data

86. Since 2006, personal current account (PCA) providers have also shared CATO data with the three large CRAs. CATO data tends to consist of a single monthly turnover figure net of transfers and refunds for a consumer's PCA, although the precise details of what is shared differs between each PCA provider and CRA. Some lenders use CATO data to help verify borrowers' income and to support affordability assessments. PCA providers who contribute CATO data have access to granular CATO data. Non-PCA providers (eg credit providers without a PCA product) that nonetheless contribute certain other data, for example on credit applicant's income, can access some level of information or products derived from the CATO data. CATO data is overseen by UK Finance.

3 Demand side analysis & CIUs' role in driving effective competition

Introduction

87. For competition between CRAs to be working well, credit information users (CIUs) need to be able to accurately assess their own needs and compare between suppliers to decide which best meet their needs. Additionally, any supply-side market power can potentially be mitigated if buyers are able to gain and exercise bargaining power. In general, bargaining power stems from having 'outside options'.

88. In assessing how well the demand side performs this role, we have sought to understand:
    - the main profiles of CRAs' clients and the potential for differences in competitive outcomes between them
    - how procurement for CRAs' services occurs and the impact this has on outcomes and competitive constraints faced by the CRAs
    - the strength of competitive constraint from CIU switching, including from strategies that CIUs have adopted to increase their outside options and therefore their bargaining power

89. Together, these allow us to form an assessment regarding the extent to which buyers (or segments of buyers) are likely to be able to drive effective competition and whether there are segments of demand for which competition is unlikely to be working well.

Switching by CIUs

90. Switching is engendered by the availability of products that are an acceptable alternative (ie substitutes) in relation to a focal product. For creditworthiness products, specifically products derived from credit performance data, only the three large CRAs are generally seen to offer substitutable products. For other services, for example affordability tools, substitutes are available from a larger range of providers (eg those using Open Banking).

91. If buyers have a range of alternatives to a given product or service, this can help mitigate any supplier power. The threat and ability of buyers to switch can, for example, help drive down prices or prevent price rises. Switching costs, as a barrier to entry and expansion, are explored further in Chapter 5.

92. From our conversations with CIUs, we understand that switching in this market can take multiple forms:
    - Full switching – when a CIU which only uses one CRA comes to renew, it undergoes a complete switch to another CRA for all services.
    - Partial switching – when a CIU comes to renew, it undergoes a switching of one or more product lines from one CRA to another. Using one CRA for different, complementary services helps a CIU build a commercial relationship which they can leverage to improve their buyer power with other CRAs, but also enables the CIU to consider furthering its existing relationship with that CRA in the future.

- Volume switching – for credit performance data, in-contract switching of bureau searches (eg, for credit performance data) between CRAs. This most likely happens once a CIU reaches its minimum volume obligation at a given CRA. The CRA at which a CIU searches for the most volume of credit performance data is considered to be that CIU's primary CRA, and hence earns more revenue than the other (secondary/tertiary) CRAs the CIU is contracted with.

93. If the demand-side were driving effective competition between providers of credit information, we would expect CIUs to access, assess, and act on information about which provider(s) best meets their needs. For example, CIUs looking for the best deal among providers by conducting competitive procurement processes at renewal (access and assess) and switching to alternative providers without facing undue barriers (act).

Client segments

94. A range of CIUs (banks, monoline credit card providers, debt management companies, motor and retail finance providers, peer to peer platforms, CISPs and more) use CRA data and products. Financial sector clients, including insurers, are the largest client group, representing over half of the three large CRAs' combined revenue. Increasingly telecoms providers, gaming and gambling providers, the public sector, and landlords are using CRA data and products.

95. There are variations in how the competition dynamics vary across CIUs by size, with differences in their ability to switch and negotiate, and the product features that they value.

96. The vast majority of CIUs spend less than 5% of their total costs on CRA products, with larger CIUs spending slightly less than their smaller counterparts. CRA products and services are an important input into lending operations and affect the efficiency and profitability of lending activities, as such we expect CIUs to be actively engaged with providers of credit information. Accordingly, on the basis of our conversations with CRAs and CIUs, this is what we have found to be the case (i.e. there is active engagement with providers by buyers of credit information).

97. There are two CIU groups that have distinctive credit information needs and that have differing degrees of bargaining power. These are larger and more complex CIUs (including banks, but also large insurers, telecom and utility firms), small CIUs (including monoline providers, credit unions and high-cost lenders). CISPs are considered in a separate annex.

98. We summarise the dynamics of competition for each of these groups below. The content in this table is informed by firm information requests and firm meetings. It shows that the distinction between the CIU groups centres on how many CRAs they typically use, the range of products used and their ability to generate credit information insights in-house.

Table 3: CIU segments

Client group	Description/ key features	Parameter of competition	Ability to negotiate/switch	Providers
Large complex organisations (such as	More likely to use multiple CRAs	Coverage and ability to predict credit risk (data quality)	Switching a CRA is complex, costly, resource intensive, and can take years	All three large CRAs

Client group	Description/ key features	Parameter of competition	Ability to negotiate/switch	Providers
retail banks)	Use a wide range of CRA data and products, not necessarily from the same CRA Invest in bespoke IT infrastructure and decisioning tools to support access and analysis of CRA data More likely to have in-house capability to develop their own sophisticated decisioning processes	Switching costs and the ease of integrating data, tools and products into their current systems	Multi-bureau strategies and in-house data analytics capability can improve negotiating position, as can their sophisticated procurement processes and experience Benefits of switching can be significant relative to the associated costs and multi-bureau strategy can lower cost of switching	
Small CIUs (such as monoline card providers)	More likely to use a single CRA Tend to rely more heavily on CRA products and analytics	Coverage of their population of consumers of interest Price plays a more important role than for larger clients	Switching for this population likely to be costly as proportion of total costs, and benefits from switching less likely to outweigh these costs	All three large CRAs plus smaller CRAs

Source: FCA analysis based on information provided by firms

99. From the responses to our RFI we learnt that most CIUs assess their CRA propositions at end of contracts and test the market for whether other CRAs can offer better commercial propositions. Some[19] others assess CRA propositions regularly during their contracts, while a minority rarely assess their contracts at all. From 26 CIU[20] responses as to why they chose their CRA over others, we know that CIUs generally feel able to identify which CRA(s) best meet their needs. CIUs indicate that data quality is the most important driver of CRA choice, followed by price, suitability for business needs, ease of integration and reliability.

100. Responses to our RFI illustrate that most CIUs contract with CRAs for typically 2 to 3 years, but there is variation in this and can be between 1 and 10 years. Larger CIUs tend to hold longer contracts than smaller ones. We also see that CIUs factor in ease of switching/exit from contract; some[21] say it is an important consideration.

Large CIUs

101. Large CIUs, for example large retail banks, consume a significant volume of credit information (thereby representing a significant revenue stream for CRAs). Below we describe the incentives for the three large CRAs to compete for large CIUs, the drivers of high switching costs for this group and their ability to mitigate these.

102. There are four main factors that incentivise the three large CRAs to continuously improve their propositions for their larger clients.

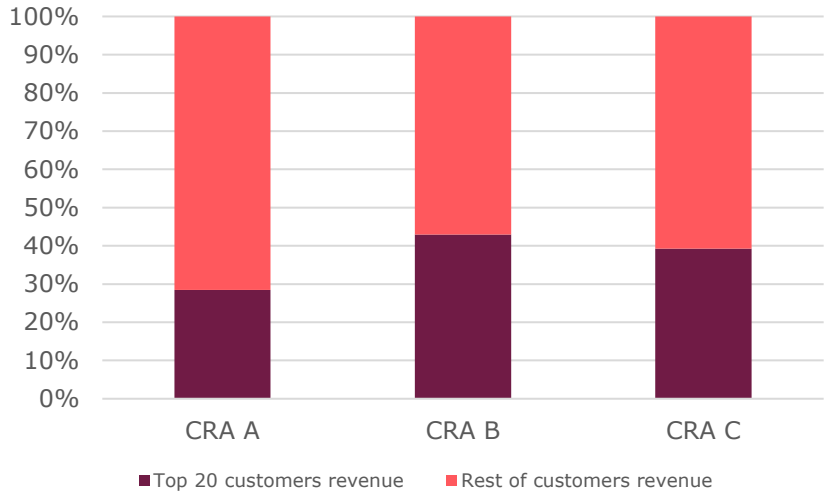
103. The first is that large clients account for a significant proportion (29 to 43 percent) of the three large CRAs' revenues (Figure 6 below). This provides large CIUs with significant leverage, as well as strengthening the incentives for CRAs to compete to retain the custom of these clients.

[19] 1 large bank, 2 small banks, and 3 monoline providers.

[20] This included a number of large retail banks, smaller banks (incl FinTech), insurance providers, retail finance providers, monoline providers, BNPL firms, motor finance providers and HCSTC providers.

[21] 1 large bank, 2 insurers, 1 monoline provider, 1 HCSTC provider, 1 retail finance provider and 1 debt purchaser

Figure 6: Percentage of revenues the three large CRAs generate from their top 20 clients (2018/19)



Source: FCA analysis based on information provided by firms

104. The second is that large clients also make significant data contributions, which is valuable to the three large CRAs. It helps CRAs improve their coverage, an important factor for CIUs when choosing a CRA provider. This results in substantial network effects in the provisional of credit performance data.

105. Third, most large CIUs tend to use a wide range of products and data from more than one CRA. From responses to our RFI to CIUs, we found that around two thirds of CIUs (typically larger ones), use more than one CRA. As a result, CRAs have an incentive to demonstrate value for money in the products and/or parts of the client's portfolio that they serve.

106. This strategy of multi-homing tends to be for complementary products from competing CRAs, but can also facilitate the possibility for CIUs to switch volumes (specifically for credit performance data) relatively quickly. This threat of losing volumes provides strong incentives for CRAs to compete to be a CIU's primary CRA (ie the CRA from which they consume the most credit performance data), and to maintain the volume from the client during the contract.

107. We have heard from CRAs that they can build on their client relationships and proven track record in delivering value for money to cross-sell other products, or extend their provision into other parts of a lender's portfolio (eg, from mortgages to credit cards).

108. Finally, large lenders who responded to our RFI informed us that, given the scale of their lending portfolios, even small improvements in the ability of CRA data, products and tools to predict default, can deliver significant benefits and make switching worthwhile. This provides the three large CRAs with incentives to continuously improve their coverage of lenders and the predictive power of their products and tools.

Large CIUs' switching costs

109. From responses to our RFI and bi-lateral conversations with the industry, we heard that larger CIUs will often have bespoke IT infrastructure and systems to collect credit performance data and integrate it with their in-house lending policies. The longer a CIU is with a CRA, in general, the more integrated the specific CRAs' systems and

internal processes are. For example, one large retail bank informed us that utilising a new CRA's data had an associated IT change cost of over £1m.

110. Full switching to use credit information from a new CRA, or adding in credit information from another CRA, can be resource intensive, take a long time and be costly. For some large CIUs, legacy IT issues are a key driver of inertia. Accordingly, the cost and ease with which large CIUs can integrate CRAs' products into their current systems is a key consideration when choosing a CRA.

111. Furthermore, given that CRAs provide an important input into large lenders' business operations, there are significant operational risks associated with switching. This goes to further large CIUs' inertia.

112. Three large lenders highlighted the links between their credit risk assessment processes and models for calculating capital requirements, indicating that prudential oversight of these processes (including the resources associated with making changes) lessens willingness to switch CRA and hence makes it difficult for new entrants to entice lenders to switch from the three large CRAs. It also makes it difficult to switch between the three large CRAs.

113. Under the Internal Rating Based (IRB) approach for credit risk measurement, firms can use their own estimates to calculate Risk Weighted Assets (RWAs) for credit risk, rather than apply predetermined Risk Weights (RW) under the Standardised Approach (SA). Only firms meeting minimum requirements and approved by the regulator, the Prudential Regulation Authority (PRA), can use the IRB approach. To roll-out a new model or make significant changes to an existing model, firms must either seek the PRA's permission, or notify it. Switching CRA, for example changing primary bureau, or re-building a scorecard, would constitute a change to a data source under an IRB model and could be classified as an event requiring pre-notification or pre-approval, depending on its materiality.

114. Nevertheless, benefits from switching can be substantial if a new CRA's data leads to more profitable lending decisions being made. Large lenders tell us that if a data quality benefit from switching is evident, they will tend to switch regardless of the cost incurred, as benefits (ie more profitable lending) tend to outweigh the costs they would incur. For example, we have heard of a lender investing £1m to switch CRA, with an estimated long-term business saving of £50m. This is also one of the reasons many large CIUs adopt multi-bureau strategies (see Box 1 below).

Factors mitigating high switching costs

115. There are some key factors that mitigate our concerns that high switching costs tie large CIUs into using a particular CRA.

116. **Multi-bureau strategies:** Larger CIUs are increasingly investing in multi-bureau strategies to enhance the profitability of their lending decisions. This also acts to improve their ability to negotiate with the three large CRAs as it makes the threat of partial and volume switching more credible, given established relationships with rival CRAs. Overall, these tend to be large lenders, but we have anecdotal evidence of smaller lenders also undertaking this investment.

117. This is because, given their substantial lending portfolio, a marginal benefit of utilising another CRA's data can engender significant benefits to lending profitability. Having established relationships with all three large CRAs and having the infrastructure to pull in data from at least two CRAs, this makes threats of volume switching much more

credible and greatly improves a CIU's negotiating power, as in this case a CRA is incentivised to compete to be that CIU's primary CRA. Nevertheless, investing in a multi-bureau strategy has a significant cost and can take years.

118. We have heard from the large CRAs that secondary and tertiary CRAs earn significantly less revenue than a lender's primary CRA for CIUs who adopt a waterfall approach (see Box 1 below). The extent to which lenders practice waterfalling is explored in this report's Data Quality Annex.

119. Therefore, switching in this market also constitutes switching which CRA is a lender's primary source of data. This is an additional dynamic of multi-homing facilitated by in-contract volume switching. Lenders typically have a minimum volume obligation at their CRAs. After fulfilling these volume commitments, they have much more flexibility and can pivot between which CRA they use the most in-contract (specifically, for credit performance data).

120. In terms of the costs they face for doing so, after an initial set up cost is paid the marginal cost of volume switching is not significant. Multi-bureau investment also has the benefit of improving data coverage. For example, lenders "call" a secondary CRA if their primary CRA comes back with little or no data on an applicant. A summary of different multi-bureau strategies are outlined in Box 1 below.

121. Nonetheless, we are aware that most multi-bureau strategies, in a given point in time, utilise complementary services from different CRAs (eg using one CRA for ID & Fraud checks, and another for creditworthiness products). Hence in-contract direct substitution of services is not significant as CIUs tend to use a CRA for given product lines.

122. Multi-homing for complementary services occurs when a particular CRA holds a quality or price advantage in certain product lines for that CIU. An established connection for any service at other CRAs, however, reduces the cost of switching for other services. As a result, the viable threat of switching volumes or partial switching away from a CRA, facilitated by a multi-bureau strategy, improves CIU's buyer power.

123. In their RFI responses, the three large CRAs told us that CIUs use multiple CRAs for a variety of reasons: operational resilience; different bureaus for complementary products/services; waterfalling to improve coverage; to find as much information as possible for a single search and enhance creditworthiness assessments ('blending data'); differing ease of integration into different parts of their business; commercial considerations (price and other contractual terms). In addition, in our bi-lateral conversation with CIUs, they emphasised the bargaining power benefits of multi-homing.

Box 1: Multi-bureau strategies

There are three main multi bureau strategies employed by lenders, but we have also seen examples of them being used by telecom companies and insurers. They may use a multi-bureau strategy for all or a part of their business. For example, they have a multi-bureau strategy for secured lending, but not for unsecured. A description of these strategies is described below. Multi-bureau strategies tend to improve a CIU's negotiating power (via a viable threat of switching), and coverage and completeness of data (via multi-homing for a given borrower's credit information).

Waterfall approach

Here the lender will, in the first instance, use their 'preferred' or 'primary' CRA. All credit performance data searches tend to automatically go to this CRA, usually referred to as the 'primary bureau'. This bureau may be primary for all the lender's business – secured, unsecured, origination and customer management business. Or may only be used for one element of their business (eg secured lending only). In the case that the 'primary' bureau does not find an individual applicant or provides limited information on the individual to allow a lending decision, or does not turnaround a data call in an adequate time window, a 'secondary' bureau and then if needed a tertiary bureau may be called on. Another reason a 'call' may be made on a 'secondary' CRA, is in the case of an outage, to ensure continuity of business. This sequencing of CRAs is described as a waterfall approach.

Our analysis finds there are incentives for CRAs to compete for the position of a lender's primary bureau. The primary bureau will capture the majority of initial credit performance data searches, and as such, will generate significantly more revenue relative to secondary and tertiary bureaus.

Data blending approach

Here the lender may use more than one bureau simultaneously. They may do this for all of their lending, or a subset of their lending (secured, unsecured, credit cards, applications only, customer management only). The lender aggregates the credit performance data from more than one CRA and removes duplicate information.

This approach gives the lender a more holistic and complete view of a prospective borrower. For some large retail banks, they may also use data they have from their internal customers (current account customers) or alternative data that they hold, to enrich the consumer view further. They may combine multiple CRA datasets and their internal data to build internal score cards. In many cases, score cards and analytical capacity is provided in-house, rather than procured from a large CRA.

In the case they find that coverage is equivalent between CRAs, and using additional CRA data is not adding value, they can turn off a CRA.

Neither approach

There are also cases were the lender uses the 'best provider' or 'market leader' in a given product category. For example, they may use a large CRA for affordability tools, another for ID verification, and another for credit risk assessments. The decision here is based on the CRA's relative price and quality in each of these areas.

124. **CRAs' mitigants to switching costs**: From conversations with both CRAs and their clients, there is evidence of CRAs waiving and/ or reducing fees that are typically charged to offset part of the cost of setting up the infrastructure necessary to provide their data, to entice CIUs to switch to them. In the course of procurement processes, CRAs often offer retrospective analyses as part of their bids so that CIUs can test the relative value of the CRA's products.

125. This makes switching less costly and burdensome for CIUs as they are able to mitigate transition risks by fully understanding the incoming CRA's products and processes. We have also seen CRAs increasingly accept data in different formats. This removes a switching cost for CIUs as their internal IT systems tend to be customised to a particular CRA data format.

126. The three large CRAs and other market participants have also developed decisioning and IT software solutions that facilitate integration with multi-CRA data sets. Such developments are likely to reduce switching costs for those CIUs that use this functionality.

127. **Sophisticated procurement processes**: Typically, larger CIUs tender to all three large CRAs at the end of contracts (around 3 to 5 years). During this the large CRAs compete via price and quality dynamics. The use of retrospective analyses enables prospective clients to determine the benefits of switching, compared to price and switching costs.

128. During procurement rounds, we have also heard that buyer power is exercised via, for example, securing dedicated innovation funds (where the CRA commits to spending a given amount on them), the offering of add-on products, often for free, and volume discounts. Overall, competitive tendering facilitates and allows for CIUs to extract value for money, and switch if there are clear benefits of doing so.

129. **Sophisticated in-house credit information analytics:** For example, the largest CIUs are likely to have sophisticated in-house credit risk capabilities.

130. One large CIU told us that their ability to undertake this analysis in-house can help them negotiate not just in relation to CRA's analytical products, but potentially gives them leverage when purchasing other products.

131. **Agile IT systems:** The issue of legacy IT systems and the extent of switching costs is likely to become less significant over the medium- to long-term as new technologically savvy firms enter and expand in financial services markets.

132. For example, newer, challenger banks may have more agile IT systems than the traditional banks due to their adoption of digitisation much earlier in their life cycle. This can result in relatively lower switching costs between CRAs.

Analysis of large CIUs' search volumes

133. We conducted an analysis of a sample of CIUs to understand the extent to which CIUs switched volumes for "hard" searches amongst the three large CRAs between 2015 and 2019. This complements our qualitative analysis regarding barriers to switching.

134. For the 21 large CIUs within our sample, we found that 62% utilised all three large CRAs. The remaining 38% used two CRAs.

135. During the sample period, we see examples of large CIUs switching volumes, but only one example of full switching occurs. At the aggregate level for all sampled large CIUs, we observe evidence of declining volumes at one CRA (CRA 1), with increased volumes at the other two CRAs, up until 2017-18. This is potentially interpretable as partial or volume switching from CRA 1 to its rivals by sampled large CIUs.

136. Regarding specific examples, we observed a large retail bank and a telecoms company exhibit some volume switching from CRA 1 to its rivals. We also observe a telecoms company which used two CRAs to a similar proportion until 2016, at which point it

switched to exclusively use one of those CRAs (ie a full switch for all services). In contrast, a retail finance provider that used all three large CRAs increased its utilisation of one of those CRAs substantially after 2016, almost exclusively using it in 2018, with searches at the other two CRAs dropping off after 2016. In addition, four large CIUs in the sample started using a new CRA over the sample period, albeit with small volumes.

137. Overall, we have found more evidence of partial, rather than full, switching taking place for large CIUs. This supports our qualitative evidence regarding the barriers to switching large CIUs can face. Nonetheless, given their tendency to multi-home (all large CIUs in our sample used at least two CRAs), it seems the status quo for large CIUs is to utilise multiple CRAs (perhaps for both substitutable and complementary products) and undergo volume switching, which is much preferred to the onerous and costly process of full switching.

138. Notably, given we find that large CIUs possess and exercise a degree of buyer power, barriers to switching between providers of credit information do not tend to engender adverse outcomes for CIUs. In addition, the prevalence of in-contract volume switching incentivised CRAs to continuously improve the quality of their services (for example, via innovation), in order to compete to be a CIU's primary CRA, and not just at the end of client contracts, during RFPs.

Small CIUs

139. To note, we do not have an exhaustive, granular breakdown of the revenue generated by small CIUs. However, we recognise that small CIUs are likely to represent significantly less revenue for CRAs. This provides small CIUs with little leverage, as well as meaning that the incentives for CRAs to compete to retain the custom of these small clients is relatively lower than for large CIUs.

Smaller CIUs' use of CRA products

140. Smaller CIUs are more likely to use a single CRA. The majority of credit unions (64%) that responded to our online survey and all home collected credit firms that responded used only one CRA. There is an even spread of the large CRAs that they use, thus no single CRA appears to concentrate in serving these smaller clients. As a result of using one CRA, these CIUs may not get as a complete picture of the financial standing of an individual (particularly if the borrower has a 'thin file').

141. Smaller CIUs tend to use a narrower range of CRA products. In our survey of credit unions and home collected credit providers we find they tend to rely more heavily on credit scores than raw credit data. For example, 40% of credit union respondents purchased credit scores, without raw data. For home collected credit firms, 25% (2 out of 8) bought credit score data only.

142. Further, from our stakeholder engagement we have heard that smaller CIUs do not always tend to report to all three large CRAs. This acts a driver of data differences cross CRAs. Further details can be found within this report's Data Quality Annex.

143. During our conversations with non-bank lenders, we heard that they are unable to access CATO data, unlike larger lenders who offer personal current accounts. They state that this puts them at a relative disadvantage when conducting affordability assessments. However, a range of affordability services are offered by the CRAs which are informed by CATO data to mitigate this hurdle.

Competition parameters

144. Price and data coverage are important to small CIUs when choosing a CRA. Small CIUs who responded to our RFI stated that price was the most important factor determining their choice of CRA. The CRA's coverage of their population of borrowers of interest was also an important driver of CRA choice. The focus on coverage may be because smaller lenders are more likely to target customer groups which have less comprehensive credit performance data.

145. From responses to our RFI and conversations with lenders, multi-homing appear to be less prevalent for smaller CIUs, who tend to, in general, only use one CRA. Therefore the pressure they can exert on CRAs is weaker, which is derived from the threat of switching from one CRA to another; for which the gains from switching have to outweigh the costs of integrating new systems into their own. These factors reduce the credibility of switching and therefore reduce their bargaining power vis-à-vis CRAs (in addition to the fact that small CIUs represent a relatively small amount of revenue for a CRA).

Switching is viable and there are more alternative providers

146. Small CIUs access credit information in a variety of ways, depending on the volume of lending, the customer journey, their internal processes (whether they process lending applications manually or automatically) and the scale and complexity of the organisation.

147. Small CIUs who responded to our RFI told us that, often due to low volumes of lending, they can use online tools to manually check the credit files of applicants.

148. As such, CRA data and IT systems are less entrenched into how these smaller lenders carry out their business – both due to the type of products they are buying and the way they tend to access data (web-based tools).

149. Our survey of small CIUs found that quite a few underwent a full switch over a 5-year period (a typical contract length according to our information request responses). One fifth of credit unions who responded to our survey and a quarter of home collected credit firms had switched. The reasons given for switching included one or more of the following: data and product quality (4 mentioned this); cost (2); service quality (1); and better integration (1). The main reason given for not switching in the past 5 years was because they were happy with their current provider.

150. Smaller CIUs have access to and use alternatives to the three large CRAs. In our survey to small CIUs, three credit unions told us they use providers outside of the three large CRAs to source credit information. Credit unions use alternative providers to help assess affordability, verify member details and use their IT software to help make lending decisions. For example, we are aware of one credit information provider that was focused on innovating credit information solutions specifically for credit unions.

151. We did not find evidence that smaller CRAs are likely to offer a portfolio of products that mean that they can be considered direct substitutes to the three large CRAs. Even though some credit unions utilise smaller CRAs for ancillary products such as affordability tools, these products are not a direct substitute for credit risk products (eg, products derived from credit performance data) provided by the three large CRAs. We discuss the reasons why smaller CRAs provide limited substitutability in Chapter 5.

152. Therefore, despite willingness amongst smaller lenders to use options outside the large CRAs, the degree of competitive threat small CRAs can impose on larger CRAs is limited therefore to a certain range of products.

153. In addition, we considered the impact of multi-homing on switching by small CIUs. As explained above, multi-homing by CIUs, among other things, acts to mitigate future switching costs. Since small CIUs don't tend to multi-home as much as large ones, in some instances they may face relatively larger barriers to switching (eg, adopting a different data format).

Analysis of small CIUs' searches volumes

154. Our switching analysis for small CIUs' volumes of hard search data sampled 17 firms between 2015 and 2019. For these small CIUs, we found that they chiefly tend to use only one CRA, but some did use two or three.

155. Two of three large CRAs exhibit a similar market share for the sampled small CIUs, with the remaining CRA providing a much lower volume of hard search data.

156. Regarding specific examples, one small lender's volume patterns indicate a partial switch from one CRA to another in 2018. A small retail bank showed some level of volume switching from Equifax to Experian in 2018. In addition, one retailer used all three CRAs until 2017, at which point it switched to exclusively using only one (ie a full switch). The remaining sampled small CIUs' search volumes do not exhibit switching patterns.

Outcomes for small CIUs

157. A few smaller CIUs have told us that the quality of service provided to them can be poor. Some smaller CIUs told us it can be difficult to engage with large CRAs, with large CRAs not always responding to their tenders, or not responding in a timely manner. In our online survey, home collected credit firms noted that their smaller size (and therefore contribution to a CRA's revenues) meant that CRAs spent less time servicing their needs.

158. However, in our survey[22] many smaller CIUs (credit unions and home collected credit firms) viewed CRA products positively. 85% of credit unions (33 responses) viewed CRAs' products as good or very good and 75% (out of 8) of home collected credit firms also viewed products as good (only one thought they were poor).

159. In general, smaller lenders felt that using CRA data improved their lending. 48% observed their arrears rates had fallen and 22% saw no change. However, 14% felt they had increased.

160. Due to the dual role of CIUs, it is reasonable to infer that CRAs would value large clients more than their smaller counterparts, beyond pure revenue generation as a result of aforementioned network effects. Due to this and the fact that small CIUs generate significantly less revenue for CRAs, we were concerned that small CIUs may pay disproportionately more than their larger counterparts.

161. CRAs told us they often give significant volume discounts to clients that commit to larger contracts (ie bulk-buying).

162. Notably, volume discounts are not necessarily harmful and can be a healthy feature of a B2B commercial relationship. In fact, these can promote price competition between providers. However, where volume discounts lead to unjust systemic price

[22] We are aware, that these samples are small and may not accurately, fully reflect the views of the general industry, adversely affecting the external validity of our findings.

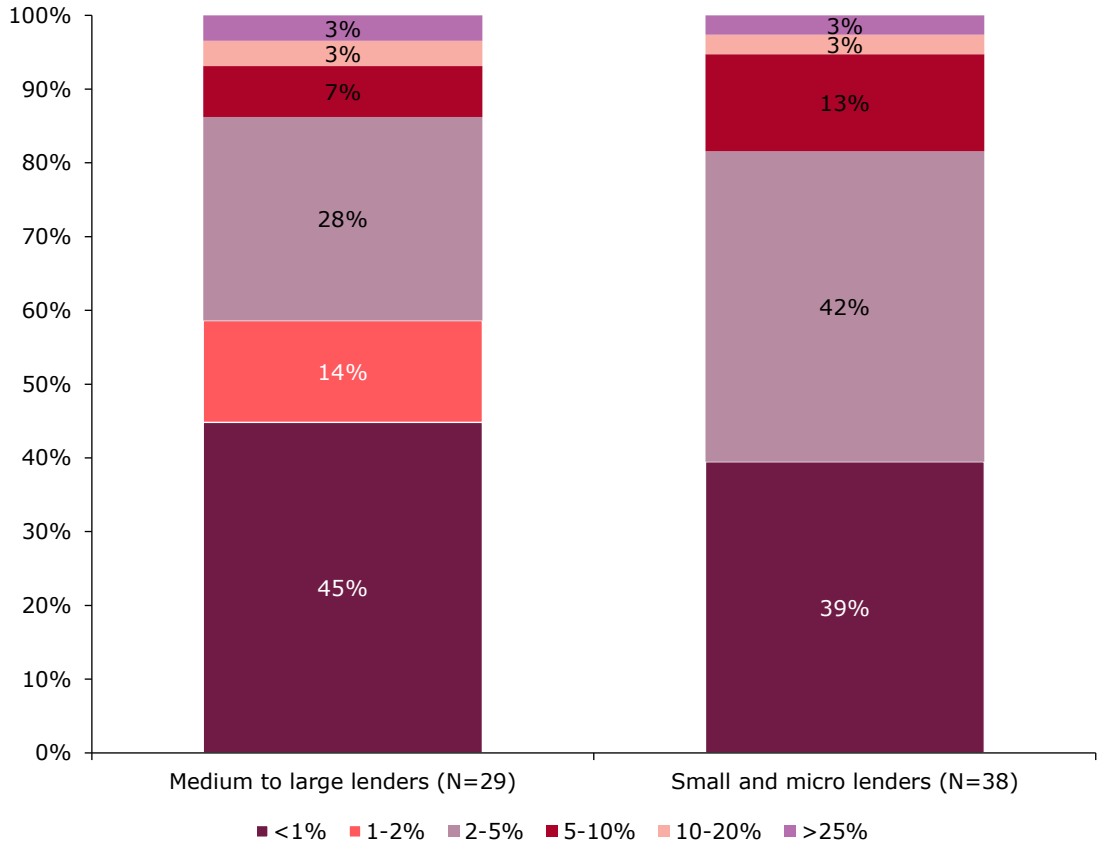
discrimination, dissimilar conditions for equivalent transactions between different lenders can affect competition in the downstream lending market. We have heard from one small CIU that this could be the case, as such we have looked at whether or not evidence indicates systemic price discrimination by providers of credit information.

163. We reconcile volume discounts with commercially viable conduct by the CRAs due to the fact that fixed costs of provision for an additional CIU can be significant (eg, on-boarding IT costs). In comparison, the marginal cost of provision (eg, one hard credit bureau search) to an existing CIU is negligible.

164. Hence CRAs are able to recuperate their fixed costs of provision over a substantial volume sold to larger CIUs who can thus pay less per unit (a volume discount). For smaller CIUs which consume a much lower volume of credit information, a relatively higher marginal price (per bureau search) is justified to recover similar fixed costs of provision.

165. Figure 7 illustrates the quantitative evidence we have on potential price discrimination. It shows that smaller CIUs in our sample tend to pay more for CRA data than larger CIUs, as a percentage of their total operating cost. We reconcile this with the fact that there is a substantial difference in operating costs smaller CIUs face relative to larger ones (which we are unable to control for). Therefore we cannot be confident that this cost distribution indicates systemic discrimination on price based on CIU size and associated revenue generation[23].

Figure 7: Frequency of CRA cost (as a % of total operating cost) by CIU size



Source: FCA analysis based on information provided by firms

[23] We also recognise that there are other factors which affect lenders' total operating costs which naturally varies between large and small lenders.

166. We have anecdotal evidence that the dynamic between cost of provision and unit price (affected by volume discounts) discussed in can adversely affect certain small CIUs. For example, we heard from social purpose lenders, who do not consume a significant volume of credit information, that they pay many multiples more per search than large lenders.

167. A social purpose lender we spoke to explained that this is a problem for them because they tend to convert a relatively lower proportion of credit applications into credit agreements as a direct result of their social purpose mission (for which they still incur a CRA search cost for credit performance data for each application). As a result, the cost of credit information is likely to contribute a greater proportion of such CIUs' total operating costs relative to their revenue, especially considering that they typically lend smaller amounts. Nonetheless, we do not believe that we have the evidence to conclude that this price differential results in an acute problem which can distort competition in the downstream lending market.

Comparing outcomes by CIU size

168. All three large CRAs monitor all client feedback and conduct market research to improve their product propositions. As part of CIUs' procurement processes (chiefly conducted by large CIUs), they get feedback on their unsuccessful bids, such as the broad criteria that other CRAs performed better on (price, matching rates, coverage, predictive power). This allows CRAs to gather feedback and improve relative to their competitors.

169. Overall we see a difference in outcomes between small and large CIUs. Large CIUs with legacy IT systems can face larger switching costs relatively to smaller, more flexible CIUs. Nevertheless, large CIUs tend to adopt multi-bureaux strategies, which can mitigate switching costs as they are already utilising (potentially complementary) services from another CRA. They also receive proportionally greater benefits from switching, in the case that improved data quality can result in improved lending decisions given their larger lending portfolio.

170. As a result of volume discounts and minimum volume obligations, smaller CIUs often pay more per unit relative to their larger counterparts. Large CIUs' sophisticated procurement processes also enables them to negotiate better on price terms. This is substantiated from evidence submitted by a large CRA, which gave an average price reduction of []²⁴ in 2019 for large contracts. This is also supported by our analysis of volume discounts in above.

171. In addition, since CIUs possess a dual role in this market, in that they are also data contributors, and because large clients amount for a substantial proportion (between 29 and 43 percent) of CRAs' revenue, these CIUs are inherently more valuable to CRAs and, as a result, may incentivise CRAs to give these clients more favourable outcomes in terms of price. We do not expect CIUs' dual role to be a significant driver of pricing outcomes for large clients as the largest CIUs (eg, tier 1 retail banks) tend to report to all three large CRAs regardless of using them above for the incentives for large CIUs to do so). Withdrawal of data contribution by these parties is likely to be a rare and extreme occurrence.

172. Our analysis of hard search data from 37 CIUs supports our qualitative findings that larger CIUs typically multi-home to a greater extent than smaller ones. In terms of switching, we see much more evidence of CIUs undergoing volume switching compared to full and partial switching.

[24] This information has been redacted for confidentiality reasons.

173. Large CIUs tend to exhibit greater levels of volume switching as a direct result of their tendency to multi-home. In addition, given the size of large CIUs' lending portfolios, the benefits of switching (ie improved data quality which facilitates more profitable lending) are higher.

174. The prevalence of in-contract volume switching highlights the incentives faced by CRAs – that they need to constantly compete for (large) clients' custom (eg, via product innovation to better position themselves to be the CIU's primary CRA) given their ability to switch volumes to a rival CRA. The fact that we see limited examples of full switching in our sample substantiates the qualitative evidence we have seen regarding barriers to switching between CRAs.

175. As a result of a higher degree of multi-homing, large CIUs have already incurred costs and therefore mitigated future switching costs. Given small CIUs do not tend to multi-home as much, they have not already incurred these costs and are therefore likely to face material costs when looking to switch between CRAs. Nevertheless, while switching costs may be significant for small CIUs, these costs may limit but do not prevent small CIUs from switching, given we have found numerous examples of small CIUs full switching above. As a result, we see higher rates of full switching for small CIUs than for large CIUs, given the internal process change cost large CIUs are likely to incur as a result of fully switching CRAs.

176. In addition, in our RFI to CIUs we asked to what extent they thought switching barriers to be substantial in the market (we received 19 responses to this question):

- 58% (11/19) said barriers are not significant.
- 37% (7/19) said they are significant.
- 5% (1/19) claimed that historically there have been barriers, but as greater scale is achieved the cost-benefit balance shifts.

177. From conversations with CRAs client churn appears to be relatively low. These claims are supported by our analysis of search volumes. Given this low level of client churn, this substantiates our findings on the presence of barriers to switching for some CIUs. We explore the impact of switching barriers on entry and expansion by challenger CRAs in Chapter 5.

4 Nature and closeness of competition between CRAs

Introduction

178. In this section, we focus on describing how the three large CRAs compete, focusing on the creditworthiness product segment. We then explore features that result in a concentrated market and explore to what extent this is the result of harmful drivers (such as the strategic behaviour of firms). Finally, we explore whether firm behaviour and the outcomes delivered are consistent with a healthy competitive dynamic.

Key dimensions of competition

179. On the basis of the evidence we have found, the three large CRAs compete on price and the quality of their data and products, particularly the ability of their data and products to effectively assess credit risk, and the ease with which their data and products can be integrated into their clients' systems and processes.

180. The product features that CIUs who responded to our information request told us informed their choice of CRA are described in the table below. They are the same features that CRAs claim to compete on. There is evidence of CRAs monitoring these features, collecting evidence through market research, and client feedback. All three of the large CRAs have specified data quality as one of their key performance indicators.

Table 4: Summary of the dimensions of competition

Parameter of competition	Description
Price	Prices are typically charged per credit performance data search. CRAs set prices with reference to rate cards, which set out their price lists. In the last 5 years, there are examples of CRAs significantly revising their rate cards downwards (in some cases as much as by 75%). CIUs can negotiate on price, securing lower prices by extending their contract length and/or agreeing to minimum spend. When choosing a CRA, CIUs typically compare the costs and benefits associated with each of the large CRAs, balancing the price against the estimated increased revenue from using that CRA's products as a result being able to better assess credit risk (face fewer defaults, lend to more consumers).
Coverage	This is the extent to which the CRA has credit performance data on the population of consumers that the lender is interested in. This has in the past been a key determinant in a CIUs' choice of CRA. Increasingly, CIUs indicate that differences in coverage between the three large CRAs have been narrowing over time and as a result, becoming less important in driving choice of CRA.
Completeness and accuracy	Completeness is the extent to which credit performance data on an individual gives a full picture of their financial obligations, for example it shows full picture of an individual's credit accounts and an up-to-date view on their status (whether they are in arrears or not). This can depend on how well CRAs can match data to an individual (matching rates). Accuracy is the extent to which data held on an individual is accurate and up to date. Again, this can depend on how well CRAs can match data to an individual, as well as the quality of the data submitted to the CRA.
Predictive power	This is a key determinant of choice of CRA and the data and products purchased. CIUs test the degree to which these CRAs' credit risk and decisioning products can assess credit risk. Coverage, completeness and accuracy of credit performance data are all contribute to the ability of CRAs' data and products to assess credit risk effectively.
Ease of integration	The key driver of high switching costs in this sector is the cost associated with integrating CRA data into a CIU's systems. This is a key consideration for many CIUs in their choice of CRA.

Source: FCA analysis based on information provided by firms

Box 2: Predictive power of data and products is key to demonstrating value

It is important for CRAs to be able to demonstrate how well they can predict credit default. CRAs often share credit performance data with their customers so customers can test the predictive power of their products and services. Customers may also consider match rates, data coverage of their consumer cohort of interest and credit score performance. Case studies, live trial periods and customer references also have a strong role to play in demonstrating value, including to test the ease of use of interfaces and software solutions to access, analyse credit data and in some cases to test decisioning tools.

Customers, particularly large customers with large lending portfolios have incentives to understand whether alternative or additional providers can provide better predictiveness of default. A small uplift in being able to assess credit risk more accurately is valuable to larger lenders. Due to the scale of their lending portfolios improving accuracy of credit risk assessments can translate into significant benefits in terms of minimising losses due to default and maximising revenue streams. This benefit is also applicable to smaller lenders, albeit at a lower scale given their relatively smaller lending portfolio.

Customers mainly assess the predictiveness of CRA tools, data and products through retrospective analysis. This involves the client providing the CRA with a sample file of historic customer applications. The CRA then processes the file at the historical application date, which enables the client to statistically evaluate and assess the predictive ability of data compared to actual outcomes. This is used for calculating the added value offered by credit risk solutions and also an assessment of whether the costs to switching to another provider is net beneficial.

Extent to which CRAs compete in the provision of creditworthiness products

184. In the section below we describe the key features that have shaped the level of concentration and dynamics of competition in the provision of creditworthiness products.

185. In markets characterised by a few large players that have repeated interactions in multiple markets, there is an increased likelihood that they can implicitly (that is without any direct agreement) move to serve different client segments or focus in the provision of different products (market carving). In this way, the market can evolve so that firms may not provide a direct competitive constraint on each other and, as a result, could lead to them extracting excessive rents (profits). To test whether the creditworthiness product segment is evolving in this way, we have analysed the extent to which all three large CRAs are active across client and product groupings.

186. Where markets are characterised by a few large players, we may also expect there to be limited price competition as firms are less willing to act independently of each other as they fear a subsequent price war. We have therefore looked at price trends in the market.

187. Given the high switching costs, established relationships between incumbents and their clients, and substantial network effects, we would expect it is difficult for new entrants to grow their market share. Nevertheless, a significant market entry event is the case of TransUnion (previously CallCredit) which successfully broke up a duopoly

concentration (for more details on its entry, see Chapter 5). Although we recognise this entry occurred a significant amount of time ago (in 2000), we are still able to draw implications from it as a result of the static nature of the market (in terms of incumbent providers of credit information). We explore the implication this had for competition in the market.

188. We also tested whether outcomes (regarding price, quality and innovation) in the market commensurate with strong competition between CRAs. This is because strong competition between rival providers can, in general, lead to clients benefiting from price and non-price competition. For example, quality improvements facilitated by product innovation.

Competition across product segments and client groups

189. Larger CIUs have the option to use multiple CRAs for credit searches. Their primary CRA is the first called to carry out a credit search. As such, we wanted to:

- Test whether the largest CRA, Experian, was predominantly winning primary status and whether this explained its significantly larger market share compared with the other two large CRAs. We found that this was not the case. All three large CRAs are achieving primary status.
- Check all three large CRAs are winning primary status for each client group and lending portfolio. We found this to be the case.

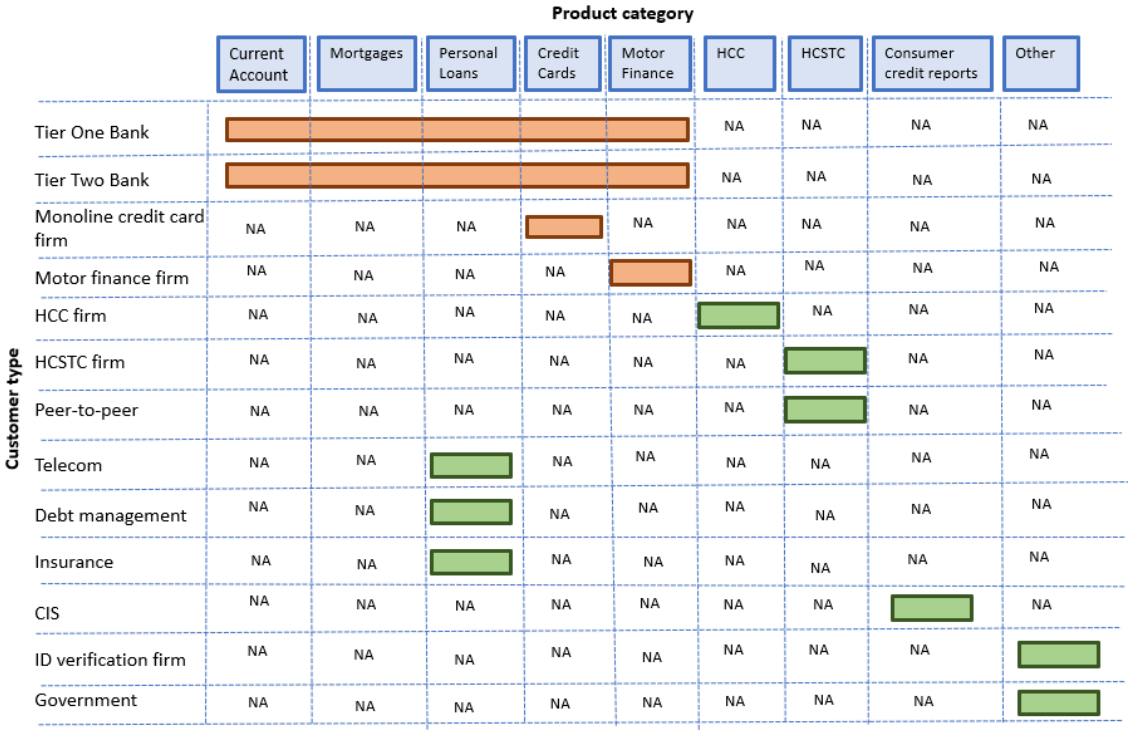
190. All three large CRAs offer a product proposition in each creditworthiness segment. 88% of CIUs who responded to our information request indicated that for their business activities they could continue to function at an acceptable level using a different CRA. However, 63% mentioned there would be challenges, including significant time, costs, effort, and risks involved with technical development, integration, analysis and testing required. This includes rebuilding scorecards and models due to differences in the way that credit information data is aggregated and summarised.

191. To assess whether each of the three large CRAs are serving a single group of CIUs or operating in a single market segment, we analysed the nature of the large CRAs' top 20 clients in terms of these clients' operations in different market segments. These represent a significant proportion of the CRAs' revenue (between 30 to 40%).

192. We found that each large CRA is winning primary status for credit searches across a range of different types of lending portfolios (mortgages, credit cards, personal loans) and client groups (eg, tier one banks, tier two banks, monoline credit card providers).

193. There are only a couple of instances where one CRA serves a particular client group. Also, only one large CRA has a ID digital solution provider in their top 20 clients. However, there are unlikely to be significant reasons as to why the other CRAs could or would not have the incentive to compete for this client.

194. It is worth noting that each of the CRAs had primary status with credit portfolios at origination and client management.



Source: FCA analysis based on information provided by firms

195. Primary status is consistently achieved by all three large CRAs across mainstream credit products (eg, credit cards). This is intuitive given the significant number of lenders (and consumers) who interact with these products.

196. We observe that it is less likely there are multiple bureaus with primary status for less mainstream products (eg, HCC). This is due to the fact that there are fewer lenders and consumers participating in this part of the retail lending market.

197. We expect that the revenue associated with achieving primary status is likely to provide CRAs with adequate incentives to compete for this position through both price and non-price competition.

198. Outside of the top 20 clients and in the provision of services to, in some cases, much smaller CIUs such as credit unions, each of the three large CRAs service these smaller CIUs. This gives us reassurance that even for smaller lenders, all three large CRAs appear to be active at trying to win clients.

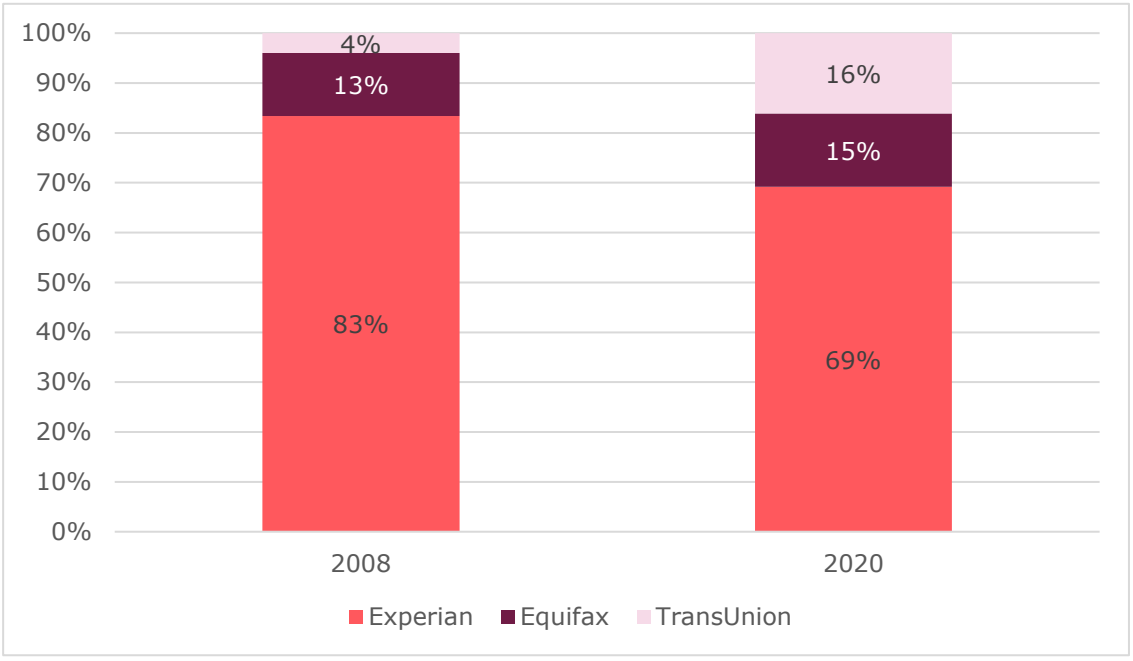
The most recent entrant of the three large CRAs is now of a similar size to Equifax

199. Given the high costs of switching in this sector, we wanted to assess the extent to which a firm can successfully enter and grow its market share. In this section, we look at the experience of TransUnion (formerly CallCredit), as it is the most recent mainstream CRA entrant. Its entry was aided by large lenders who agreed to contribute credit performance data to the CRA. We provide more details on TransUnion's entry in Chapter 5. Here, we focus on the revenues generated by the three large CRAs over time.

200. Although Experian's market share (measured by total revenue, not specifically for creditworthiness products) was still significant in 2020 at over twice the size of Equifax and TransUnion combined, it had fallen by 9 percentage points over 10 years.

TransUnion, the most recent entrant of the three large CRAs, has grown multiple times faster than the other two large CRAs between 2008 and 2020, becoming the second largest player in the UK in 2020 (Figure 8).

Figure 8: TransUnion has become the joint second largest player in the credit information sector in the UK, based on total revenues for the three large CRAs[25]



Source: public accounts (Experian) and UK statutory accounts (Equifax Limited, TransUnion International UK Limited)

201. TransUnion has been able to disrupt the duopoly incumbency of Experian and Equifax in the provision of credit information. Accordingly, as shown in Figure 8 above, TransUnion has been able to expand and is now the second largest CRA in the UK.

202. Since around 2013, Experian and Equifax have had access to CATO data. As a result, they have been able to develop and expand their affordability product line. Open Banking is also another avenue for CRAs to produce affordability products (without the need to access CATO data). FCA's rules introduced in November 2018 clarified expectations of consumer credit firms in relation to how they assess affordability, and this has provided demand for metrics related to indebtedness, income and expenditure. Looking forwards, this can incentivise new entrants to contest the provision of affordability products without facing significant barriers, such as the inaccessibility of CATO data.

203. Also, we have heard from the large CRAs as well as large CIUs that TransUnion has been able to win business from the two incumbents since it entered as CallCredit. This demonstrates that at least part of its growth has come from winning clients from the other two large CRAs.

[25] This includes all CRA activities, for example all product lines illustrated in Figure 1

Do market outcomes appear broadly commensurate with competition between the three large CRAs?

204. We analysed market outcomes, in particular price, quality, innovation and profits in order to reach an assessment regarding whether outcomes were broadly commensurate with competition occurring between the three large CRAs.

205. For example, in a competitive market we may expect to see strong price competition between providers, resulting in falling levels of unit price over time. We may also expect to see providers investing in their processes and products, to improve efficiency and the quality of their product lines for their clients (non-price competition). In addition, providers would generally not earn excessive profits.

206. Analysis from financial data provided by the large CRAs has enabled us to assess outcome trends. Given the complexities in how different CRAs categorise financial data, we have been unable to analyse these metrics for each segment of the market.

Prices have been falling for creditworthiness products

207. In markets characterised by a few large players we may observe limited price competition as, for example, suppliers may be able to coordinate on a given price in fear of a price war. We have therefore looked at price trends for creditworthiness products and have found evidence of falling unit prices.

208. We note that falling prices by themselves are not sufficient to evidence effective price competition. For example, costs be falling at a faster rate than prices, suggesting that there is potential for providers to compete more effectively on price. As a result, we examined the path of price movements in conjunction with an analysis of CRAs' profitability over time in order to determine whether or not price reductions are consistent with a degree of price competition between providers of credit information.

209. Prices are negotiated with CIUs at renewal or when CIUs issue a Request for Proposal (RFP). For most RFPs, we see all three large CRAs responding to solicit prospective client's business. In some RFPs, we are seeing an increasing presence from challenger CRAs.

210. Due to how CRAs were able to provide us with financial data and to ensure consistency between CRAs, we could only analyse pricing trends for creditworthiness products taken together, rather than analyse pricing trends separately for credit performance data, analytics or metrics derived from this data, affordability tools and finally, credit decision infrastructure. As a result, there is a risk that pricing trends are different for each of these product segments which is overlooked by our analysis.

211. Unit pricing analysis for creditworthiness products is the best proxy we have for price analysis as none of the three large CRAs track operational metrics (eg, regarding volumes) in a consistent manner across their activities. Most business is B2B, and pricing structures can be complex.

212. We have analysed both the volume and unit price of creditworthiness products over time. Analysis of unit prices alone is not sufficient to inform an assessment of the degree of price competition. Instead, we draw upon the relative movements of unit prices, volumes and profitability in order to make this assessment. This is because if volumes were rising faster than unit prices were falling, providers could be earning greater revenue as a result of the fact that rising volumes outpace declining unit prices. As a result, we would not be able to conclude that providers are strongly competing

on price. Furthermore, changing costs of provision can affect prices, therefore we also looked at profitability over time to inform our assessment of the degree of price competition.

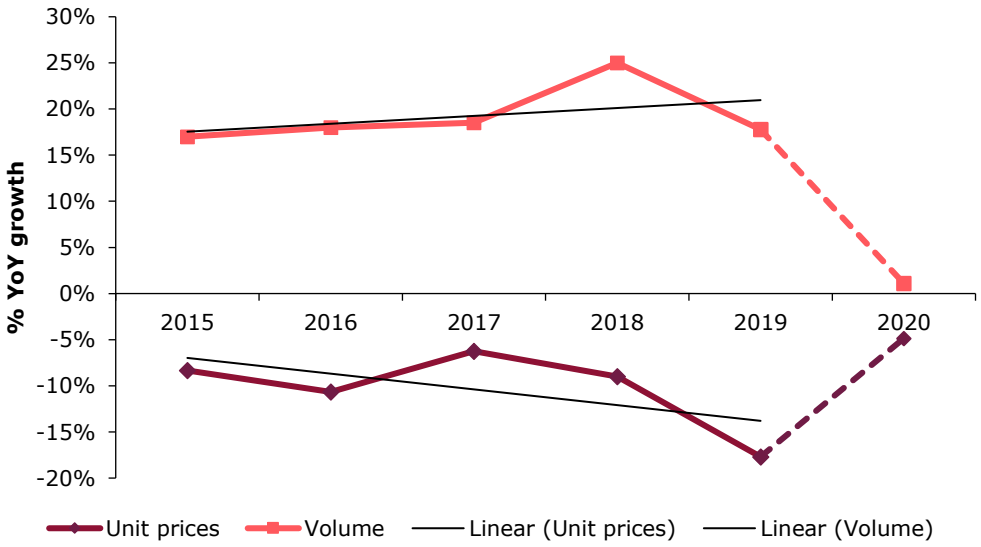
213. We discuss the dynamic between fixed costs and unit prices, and how these result in potential economies of scale in Chapter 5.

214. We have found that prices of creditworthiness products have faced significant pressure since 2015 when our analysis starts. Figure 9 below shows that average unit price across the three large CRAs has declined since 2015 in the provision of creditworthiness products. In the same period, the volume of searches at CRAs has been rising at a faster rate. This means that the revenue associated with creditworthiness products may have been rising over the period, as rising volumes have partially offset the impact of falling unit prices**Error! Reference source not found.**. Notably, in 2019, the growth in volumes was closely matched by the fall in unit prices.

215. This data was assessed on a best endeavour basis, but they lack comparability. Data series should therefore be interpreted as a direction, rather than an accurate, absolute comparable level.

216. Notably, 2020 (dashed line) is an outlier year in Figure 9. The sharp fall in volume growth is reflective of the contraction in lending markets as a result of the pandemic. Additionally, although unit prices continued to fall in 2020, albeit not by as much as historically, this figure lacks robustness due to a large range across the three CRAs (30-40 percentage points). Regardless, 2020 does not significantly alter the general downward trend we see in the unit price of creditworthiness products.

Figure 9: Volume of searches and unit price trends for creditworthiness products between 2015 - 2020



Source: FCA analysis based on information provided by firms

217. Given the analytical challenges in getting comparable pricing data, we also looked at whether CRA revenues, behaviour and profitability are consistent with prices falling and effective competition.

218. All three large CRAs have told us that although search volumes have increased, revenue has remained broadly flat. They argue this is due to falling prices, which is consistent with our analysis of the large CRAs' financial data. Reasons given for this by the CRAs include the increasing use of multi-bureau solutions by their clients, and increased product commoditisation of credit performance data.

219. Evidence from CRAs' self-assessment of their pricing trends substantiates our findings from our financial analysis. One large CRA's bureau price (hard search) volume fell more than 25%.

220. We have also found examples of the three large CRAs revising their rate cards down between 2019 and 2021. Rate cards set out a CRA's pricing for their products lines. CRAs suggest that with increased competition, they had found that their rate cards were too high. After testing their rate cards with clients, there are a number of examples of CRAs finding that they were not pricing competitively enough. One example provided saw a CRA reduce their rate card by []%[26] and took steps to simplify their pricing structure. Other instances saw rate cards reduce by []%[27] for affordability products.

221. Finally, that prices have been falling is consistent with our analysis on declining profitability for all three large CRAs. We set out our profitability findings below.

222. Given that prices appear to have been falling for creditworthiness products (see Figure 10), we wanted to understand the reasons why. We identified a number of potential drivers.

223. One driver is likely to be the significant increase in volumes over the last 10 years and as a result of the volume discounts achieved by clients. For example, responses to our RFI indicate that 81% of clients feel they can negotiate price discounts and/or freezes.

224. CIUs also provided us with examples of their CRA proposition reviews. We saw examples of CIUs being able to secure significant discounts from the headline prices offered in initial tenders. Typically this was as a result of CIUs agreeing to a minimum spend or extending their contract length.

CRAs' profitability has been declining

225. Understanding profitability is relevant to our assessment of the nature and strength of competition in the market. In a competitive market, CRAs would generally not earn excessive profits. In contrast, excessive pricing may be indicated if profits are consistently higher than the competitive benchmark.[28]

226. To assess the profitability of the three large CRAs, we use metrics customary to this industry. EBIT margin assesses operating profit margin. It is computed as earnings before interest and taxes and is expressed as a percentage of total revenues. In other industries, it is customary to assess profit margin based on EBITDA margin (ie before depreciation and amortisation, as such amounts relate to the investment cycle rather than the operating cycle). Given the varying treatment of data and software related expenses specific to this industry and the relatively high level of capital expenditures, we are confident that EBIT margin is a more appropriate metric compared with EBITDA

[26] This information has been redacted for confidentiality reasons.

[27] This information has been redacted for confidentiality reasons.

[28] Paper from Oxera "Assessing profitability in competition policy analysis" prepared for the OFT, 2003: "Excessive pricing. Are profits persistently in excess of the competitive benchmark?"

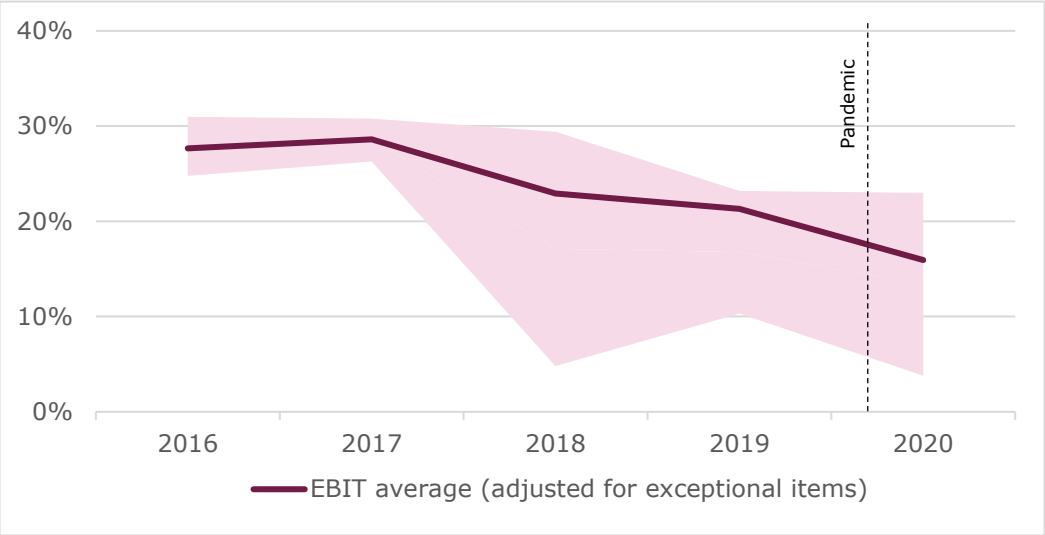
margin which is susceptible to accounting estimates applied to the economic useful life of assets[29].

227. The three large CRAs have adjusted EBIT margins ranging between 10% and 23% in the UK in 2020, with an average at 16%. Figure 10 shows the average adjusted EBIT and the spread of the unadjusted EBIT between 2014-2020.[30]

[29] Adding back depreciation/amortisation in EBITDA could lead to more distortions in the firms' earnings, especially as it's an accounting judgement. Therefore including it in their earnings (EBIT) accepts the differing accounting judgements and still accounts for the high levels of capital expenditure.

[30] Adjusted EBIT was calculated for TransUnion due to costs associated with the acquisition of Call Credit in 2018 and Equifax due to costs associated with remediation of their data breach in 2017.

Figure 10: UK EBIT margin for the three large CRAs has been declining (2014-2020)



Source: FCA data request, statutory accounts. Note: only 1 CRA data for 2014 and 2 CRA data for 2015.

228. We note that operating margins remained quite stable until 2018, despite a favourable backdrop of growing revenues and operations underpinned by fixed cost base, reflecting the changing revenue mix. Since 2018, the average adjusted EBIT margin has declined, and the spread of unadjusted EBIT margin widened across the three large CRAs. In 2020 all 3 firms experienced a drop in revenue with falling demand for credit during the pandemic, putting further pressure on EBIT margins.

229. Returns, unlike earnings, take into account the economic resources used to generate profit. Capital expenditure is key part of these resources for CRAs; it is the expense category which captures spending on new projects and innovation. As the three large CRAs are part of large complex global group it is appropriate to examine this at a group level as innovation crosses geographies.

230. Below we look specifically at Experian's domestic returns (as a result of unavailable domestic data from the other CRAs). Experian's operations in UK&I are one of the reporting segments of the Experian global group. This allowed us to conduct a through the cycle analysis of the returns achieved by the firm. We calculated after tax returns for the UK&I segment and compared it with other geographies.[31]

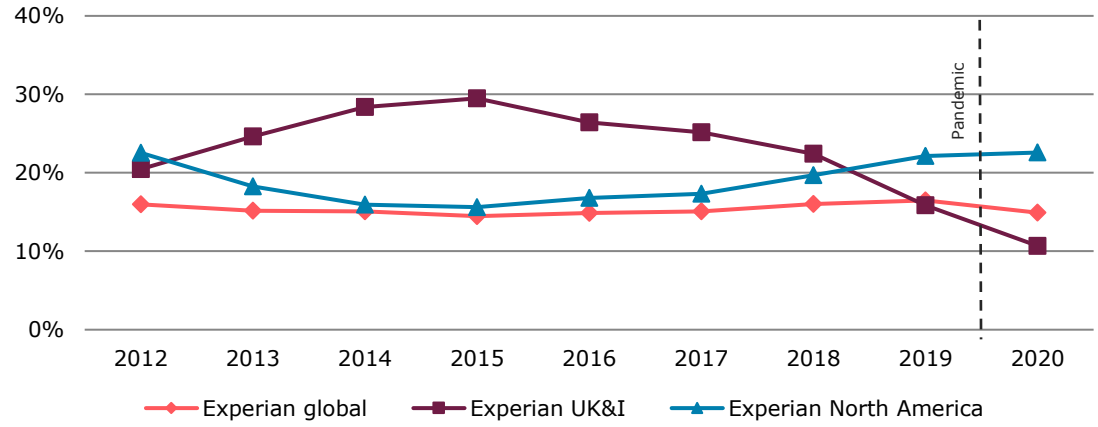
231. We make the following observations:

- Returns at global level, based on ROCE, are stable and range between 14% and 16% across 2012-20. However, these are of limited value as they mask significant regional differences. In particular, returns in the UK&I have declined steadily from 29% (peak level in 2015) to only 11% (in 2020). In comparison North American returns have remained more stable, between 16% and 23% over the period. This highlights the differences between the US and UK markets.
- Returns in the UK&I, based on ROCE, correlate strongly with macroeconomic indicator like growth in GDP (Figure 11) including during the pandemic.

[31] North America is the largest geography for Experian, representing 66% of global revenues in 2020

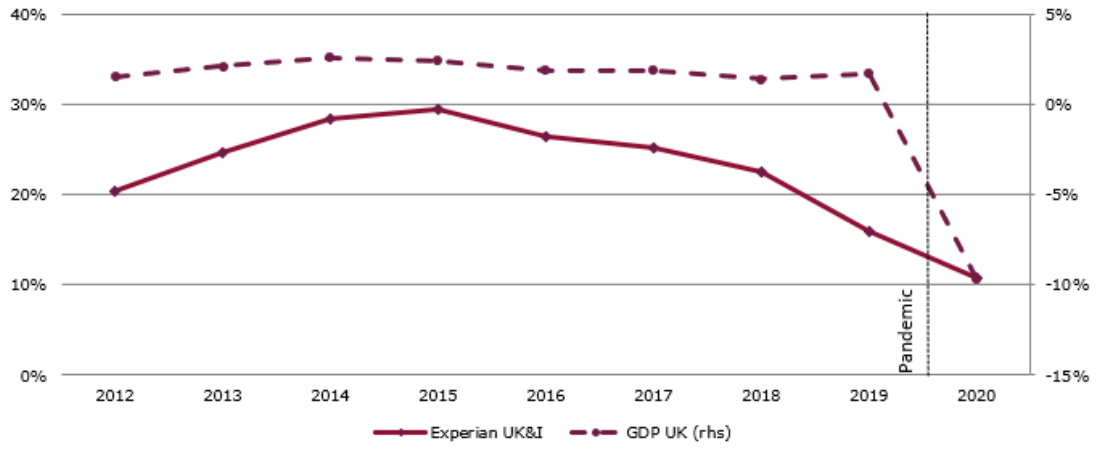
- The above-mentioned discrepancies tell us there is value in our analysis of Experian's UK&I returns. Looking solely at global returns masks underlying geographical discrepancies.

Figure 11: Accounting ROCE for Experian for the UK&I, North America and globally (2012-2020)



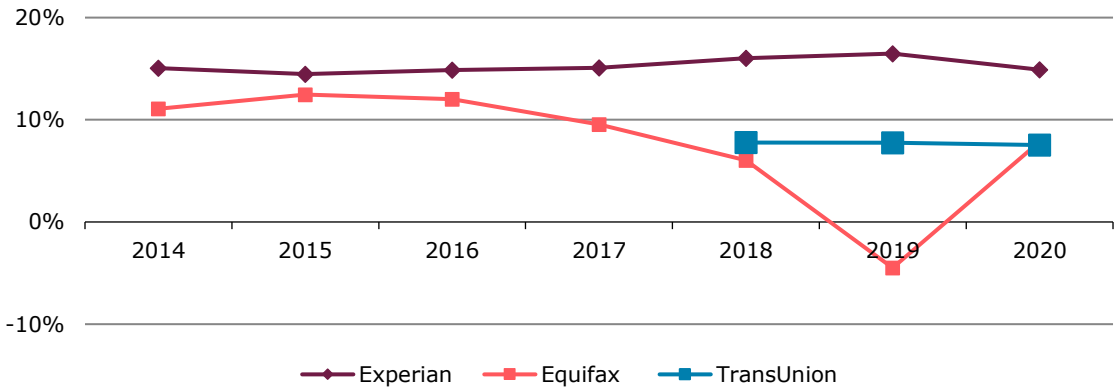
Source: public accounts for Experian PLC

Figure 12: Accounting ROCE for Experian for the UK&I vs UK GDP (2012-2020)



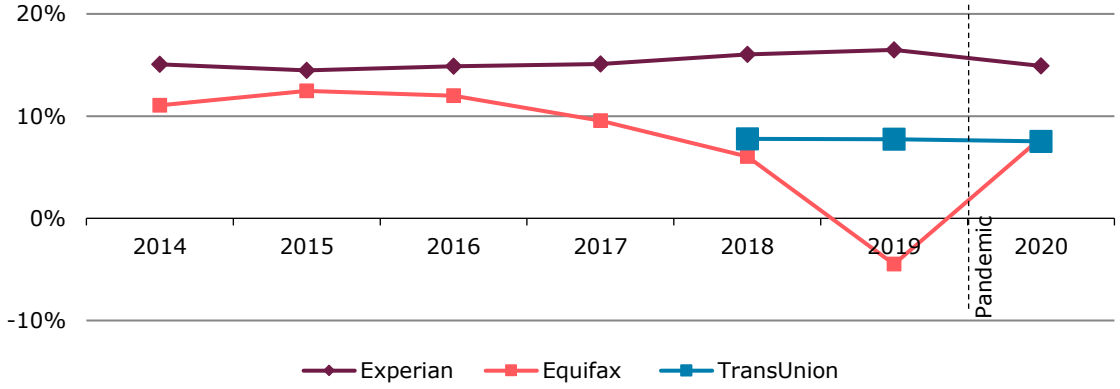
Source: Public accounts for Experian PLC, Bloomberg

232. We observe that returns for Experian and Equifax are of similar magnitude (low, double-digit bracket) over 2014-2017, ranging between 14% and 15% and 10% to 12%, respectively (Figure



13). They diverge in 2018, due to company-specific events[32]. TransUnion displays a lower level of return in 2018[33], partially driven by the acquisition of CallCredit in the UK.[34] This divergence continues in 2019 where Equifax ROCE dips to -4% before returning almost to previous levels in 2020 (8%).[35]

Figure 13: Accounting ROCE for 3 CRAs at global, group level (2014-2020)



Source: public accounts for Experian PLC (annual report), Equifax Inc. (10-K) and TransUnion (10-K). Using statutory tax rate

233. We recognise the limitations of accounting returns, as they may not fully reflect underlying economic value. This challenge is particularly acute given the intangible nature of the CRAs business and the size of goodwill within their accounts. Intangible assets represented over 55% of total assets and goodwill alone around 50% of total assets[36] at the end of 2020. As a comparison, goodwill is only 9% of total assets for S&P 500 companies[37] in 2018.[38]

234. The following elements might be under or overstated through book values:

- When assets have been built internally those amounts capitalised may not fully capture the full economic value, particularly when considering the cost of a modern equivalent asset, unlike for assets acquired through a business combination. This is relevant for the decisioning and analytics software.

[32] In 2018, Equifax' profitability is impacted by the large data breach in the US and the UK

[33] It is lower, compared to the previously mentioned brackets for Experian and Equifax

[34] We include TransUnion only for most recent years, given its acquisition of Callcredit in 1H 2018. Before that transaction, TransUnion was not involved in the UK.

[35] Equifax had significant exceptional items from 2018-20 due to remediation and security costs linked to the data breach.

[36] Based on global consolidated accounts for Experian, Equifax and TransUnion

[37] Source: https://www.ifrs.org/news-and-events/2018/12/speech-are-we-ready-for-the-next-crisis/

[38] See Appendix for a deep dive on capitalisation policies.

- Some assets are not fully recognised in the balance sheet, such as expertise of skilled workers. This would understate the accounting value of capital employed, compared to its economic value.
- Adjustments for the economic cycle or change in competitive dynamics, leading to a change in economic value of the underlying assets and reflected through goodwill impairment. However, impairment recognition might lack timeliness and accuracy. This would mean that book values are, at least temporarily, overstating value.

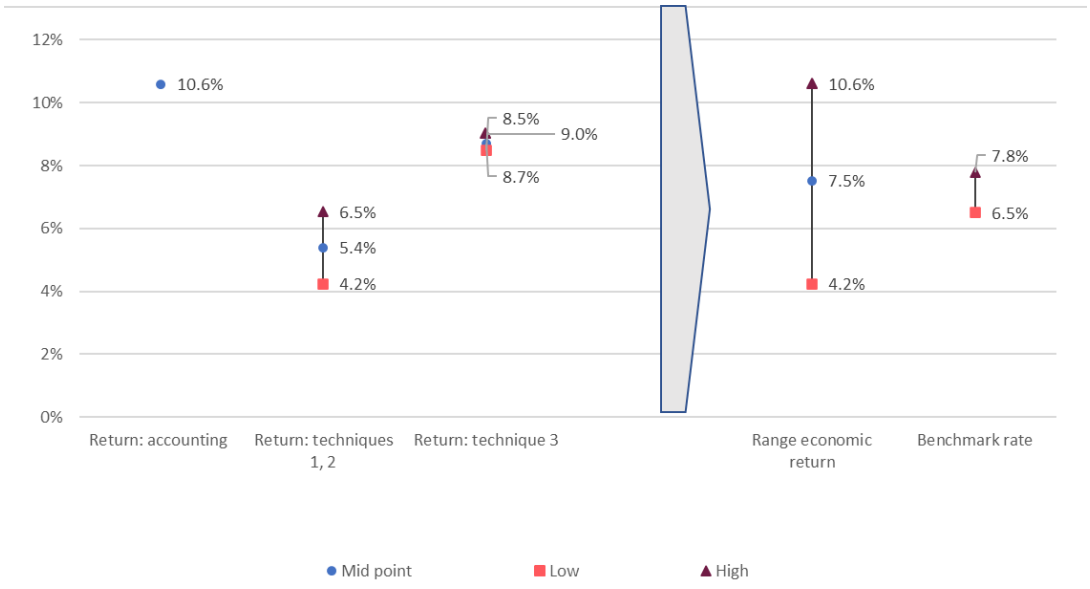
235. As a result, we adjust the book value of the capital employed specifically for Experian, using a range of methodologies, including deducting intangible assets such as goodwill from capital employed when calculating ROCE. We focused on Experian as it is the largest CRA in the UK and provides segmental information for its UK&I business in their annual accounts.

236. The objective was to strip out from Experian's capital base any element potentially reflecting the firm's ability to raise prices above the competitive level, if any.

237. We use enterprise values[39], derived from the 2 other CRAs. It is based on the principle that market value of competitors' net assets would tend to approximate their replacement value.[40,41]

238. In practice, we run a sensitivity analysis, flexing key assumptions feeding into Experian's return on capital employed. We look at the market value of Equifax and TransUnion global group to establish whether their accounting values under or over-estimate their replacement value. We then adjust Experian's capital employed base in the ROCE calculation according to an average of the competitor's replacement values over an economic cycle. This adjustment to the book value Experian's capital employed base and comparison to WACC will then provide an assessment of competition in the market, over a period time. They show UK&I Experian return on capital employed for 2020 under the various adjustment techniques.

Figure 14: Experian economic ROCE for 2020 ranging between 4% and 11%, with a mid-point at 7.5%



[39] Enterprise values were sourced via Bloomberg as a proxy for market values.

[40] Paper from Oxera "Assessing profitability in competition policy analysis" prepared for the OFT, 2003: Oxera lists the modified historical-cost accounting method and the bottom-up cost modelling as other possible methods when using the Modern Equivalent Asset (MEA) framework. In this instance, such methods are not applicable given the lack of data points.

[41] See 2013 Competition Commission guidelines for market investigations, pg 89

Source: public accounts for Experian PLC, Bloomberg, FCA

239. Techniques 1 and 2 are based on the following principles:

- **Technique 1** is based on tracking (Enterprise Value / Book value of capital employed) for Equifax (over 2008-20) and TransUnion (over 2015-20). [42] Revaluation factor 1 stands on average at 2.5x over the cycle, meaning on average, over the cycle, the competitors' market valuations were 2.5 times larger than their book value of net assets. This revaluation factor is then applied Experian's capital employed base in the ROCE calculation producing a range of returns.
- Technique 2 is similar to technique 1, adjusting for goodwill (ie tracking Enterprise Value / (Book value of capital employed minus goodwill). The idea is to further adjust for the distortion resulting from different levels of external acquisitions. Revaluation factor 2 stands on average at 6.3x over the cycle.

Table 5: Implied revaluation factor of Experian's capital base under various techniques (2020)

Revaluation factor	Equifax average 2008-20	TransUnion average 2015-20	Revaluation factor average	Revaluation factor range
Technique 1	2.5x	2.2x	2.5x	1.5-3.5x
Technique 2	7.5x	5.0x	6.3x	5.0-7.5x

Source: Bloomberg

240. In technique 3, we conduct another analysis to incorporate central costs and capital from Experian. One can argue that these amounts need to be apportioned to each geography to have a return metric that is closer to a fully-allocated cost approach. We do not conduct a detailed cost and capital allocation exercise. But we show the outcome for illustration purposes.

241. Allocating 17% of central costs and capital to the UK&I segment,[43] our baseline return for Experian UK&I declines from 10.6% to 9.0%. If we assume a range of 14% to 19% for the allocation factor (based on a mix of share of revenues, EBIT and capital employed), the return stands at a mid-point 8.7%.

242. Overall, Experian's metrics for 2020 give a range of economic ROCE between 4.2% and 10.6%, with a mid-point standing at 7.5% (Figure 15).[44]

243. We compare Experian's return in the UK&I with the weighted average cost of capital as stated by the company in its own consolidated accounts for 2020, at 7.2%.[45] This level of WACC is consistent with cost of capital assessed by equity research analysts,[46] ranging between 6.5% and 7.8% at global, group-wide level, thus providing us with a

[42] We use the period 2008-20 for Equifax as it is the best proxy for a through the cycle analysis. We use 2015 as a starting for TransUnion as the company was not listed previously.

[43] The 17% allocation factor is based on observing the following proportions: share of UK within global group stands at 18% for revenues, 19% for EBIT and 14% for capital employed, using averages over 2011-2020

[44] The midpoint at 7.5% is defined as the average of unadjusted ROCE 10.6% and the adjusted ROCE under techniques 1 to 3 (4.2%, 7.5% and 8.5%)

[45] As part of its impairment test for goodwill, Experian externalises a pre-tax WACC of 8.9% in the UK for the year closing in March 2021. Using the UK statutory tax rate, this translates into a 7.2% post tax WACC in the UK

[46] Range of WACC as assessed by a representative sample of equity research analysts across 2020: Exane and Morgan Stanley

range for the benchmark rate. This compares with a WACC ranging between 8% and 17% as estimated by firms in 2018.[47]

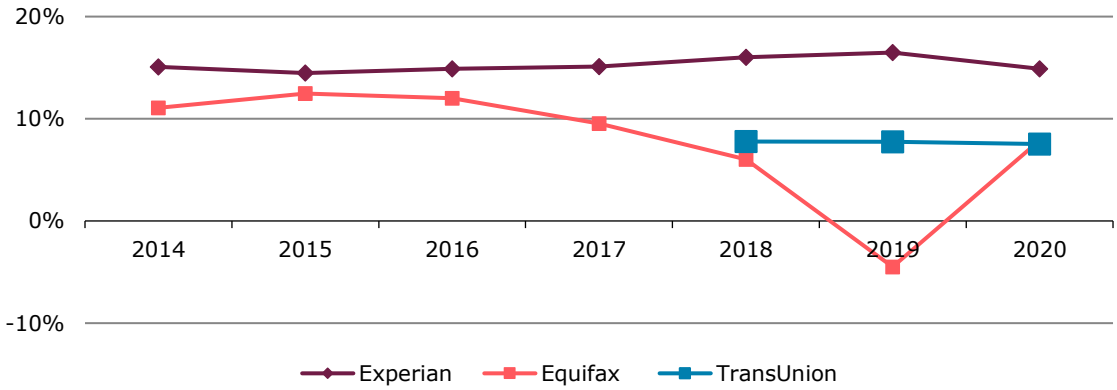
244. Overall, we can conclude that economic return, ranging between 4.2% and 10.6%, appears broadly commensurate with the benchmark rate, estimated between 6.5% and 7.8%.

245. Ultimately, drawing a conclusion from the profitability analysis relies on judgement, as some results may raise interpretation issues.[48] There is no quantified definition of a "normal" rate of return in the competition literature. Rather, the Competition and Markets Authority[49] articulates any profitability assessment around the concepts of magnitude of the gap between return and cost of capital and persistence of such gap, if any.

246. With regards to persistence, we need first to consider an appropriate period over which to examine the gap. It is specific to each market. In the credit information space, given the large sunk costs incurred by CRAs at the start of their operations[50], a long horizon is relevant. Our analysis covers 2012 to 2020, including a period of economic expansion (prior to the pandemic) and market contraction induced by the pandemic. As a result, it allows us to reach meaningful conclusions.

247. Second, the magnitude of the gap between accounting return and cost of capital varies over time in this industry. Over our 2012-20 horizon for Experian, the gap was initially relatively small in 2012, before it peaked in 2015 and has declined steadily since then to its lowest level. The order of magnitude of the gap varies in conjunction with the cycle, and is reducing.

248. Third, we believe that the level of return is similar for at least Experian and Equifax. As shown in Figure 13



, global accounting ROCE for Experian and Equifax are of similar magnitude until 2017 (ie before the data breach at Equifax).

249. Overall, we conclude that Experian's accounting and economic returns in the UK&I appear broadly commensurate with the benchmark rate, when analysing the firms at a high level taking into account the 4 segments in which they operate. This is consistent with the broader assessment of actual head-to head competition between the three large CRAs. The gap between accounting return and benchmark rate for

[47] We note that the 8% to 17% range for WACC communicated by 2 large CRAs in 2018 includes hurdle rates, marking it a higher bound, less relevant threshold.

[48] Paper from Oxera "Assessing profitability in competition policy analysis" prepared for the OFT, 2003: "the results of a profitability assessment may still raise a number of interpretation issues. For example, where high profits are found, it may not be clear whether these are due to a lack of competition, or reflect superior efficiency or temporary high profits in a dynamic market."

[49] Guidelines for market investigations (April 2013)

[50] Callcredit was launched in 2000 and incurred losses for 7 years

Experian over the period is sensitive to the economic cycle and it has reduced over time. Experian's economic returns are at a broadly similar level to the cost of capital in the UK and stand at a similar order of magnitude to at least 1 competitor at the global level.

Large CRAs are innovating and investing in data analytics

250. The credit information market is characterised by constant innovation. All three large CRAs are investing a significant portion of their yearly revenues (around 7-10% of global revenues are re-invested, see Figure 16). We also see the large CRAs monitoring smaller Fintech and analytic firms for new ideas which they can emulate and scale. All of the large CRAs partner with smaller innovative firms to some degree.

251. Equifax has also significantly increased investment in data security in response to its 2017 data breach. This has come from regulatory pressure, but also it is a key consideration of CIUs when choosing a provider and shows their need to demonstrate their capability in this area in order to retain and win clients.

252. CRAs also cite a range of innovations in the sector, including advancements in data sources, technology capabilities and analytical techniques. Many innovations are focused on enhancing predictive power to improve credit risk decisioning and enable lenders to effectively assess the affordability of credit. Examples of innovation in the market include:

- **New data sources**, such as rental data and Open Banking information are being used to enable access to mainstream credit for 'thin file' consumers who previously had more difficulty accessing credit.
- Using traditional data sources in new ways: Large CRAs are increasingly applying novel processes to traditional datasets.
- New analytical techniques. Large CRAs have claimed improvements in matching data to an individual; development of artificial intelligence and machine learning in credit risk modelling, with an aim to provide a more effective assessments of credit risk; and development of more sophisticated credit risk scorecards.
- Electronic identity verification. The rise in the risk of financial crime has led to innovation in the use of credit data for electronic identity verification. Solutions have been developed to reduce fraud and enable firms to meet their AML requirements with greater efficiency and accuracy.
- Improved IT solutions. Large CRAs have been focusing on speeding up the services offered with more automation - reducing manual processes to save time, money and errors. For example, improving the speed at which new data can be loaded into live systems; speed of delivery for deployment of services; and online response times for live decisioning. CRAs have also developed decisioning software and multi-bureau solutions that allow CIUs to integrate different CRAs' products.

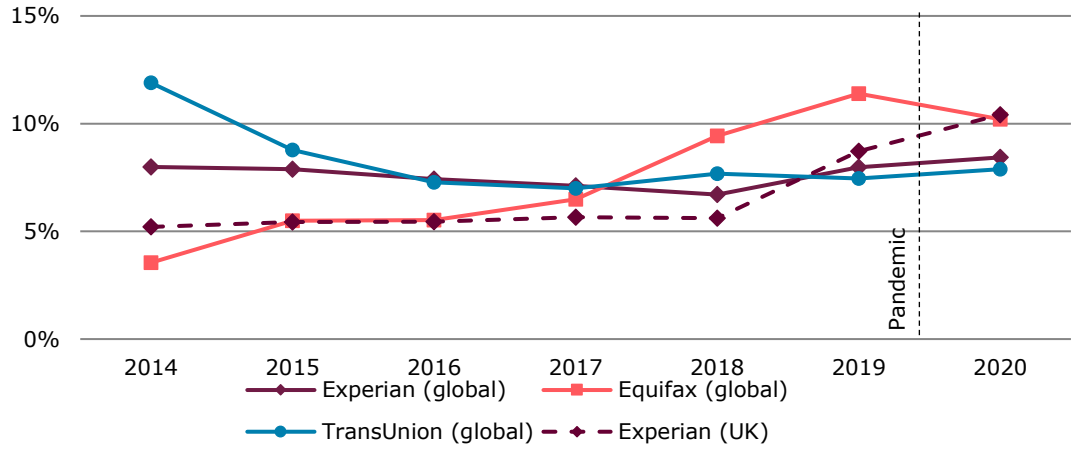
253. However, we have heard from some CIUs that the adoption of new technologies by the three large CRAs, such as Open Banking, have been slow. The three large CRAs do currently offer products derived from Open Banking. Market frictions and entrenched ways of working by the larger lenders (eg, due to legacy IT systems and inertia to adopt new technology) and CRAs (eg, monthly reporting) can be a barrier to adopting technologies that do not easily fit within CIUs' current infrastructure and ways of working.

254. The three large CRAs are likely to face at least some competitive constraint from each other, as well as from their clients' in-house analytical capability. For example, a large CRA indicated that they provide a minority of CIUs with scorecards, and the remaining are developed by their clients themselves. There are also a number of analytic firms that help lenders build scorecards, using data that the lender provides.

255. TransUnion has had a first mover advantage in the provision of affordability solutions. As the other CRAs have been able to access CATO data and with increasing regulatory focus on affordability assessments, increasing demand, we have seen the other CRAs develop their own propositions.

256. We highlight a rising trend of investment in innovation for the three large CRAs, since 2016. Figure 15 shows the level of CRAs' recurring capital expenditures measured as a proportion of revenues. We observe a convergence of capital expenditures towards a level of 8-10% of revenues, compared to a wider range of 4-12% in 2014. The level of investment has continued to rise over 2019-20, despite the pandemic.

Figure 15: Convergence of recurring investments, measured as a proportion of sales, towards 8-10% in 2020 for the three large CRAs (recurring capex /sales over 2014-2020)



Source: Public accounts for Experian PLC (annual report), Equifax Inc. (10-K) and TransUnion (10-K)

257. An example of market innovation is migration to the cloud. All three large CRAs have either undergone or are undergoing this transformation. Equifax has invested $1.5bn into cloud migration [51], demonstrating the scale of global investment. Such infrastructure spending will impact initial capital expenditure levels and the resulting cost base through projected future operating cost savings.

258. From conversations with CRAs, product innovation (eg, improving data quality) enables a rise in short-run profits as CRAs are able to differentiate themselves from their competitors. However, these benefits are eroded in a relatively short amount of time as competitors are able emulate new services and innovation becomes commoditised and CIUs benefit from increased choice. One CRA told us that innovative products' prices can fall by up to a half once innovation becomes commoditised by their competitors.

[51] https://www.equifax.com/business/blog/-/insight/article/what-is-the-equifax-cloud-and-how-does-it-benefit-customers//#Multi-data%20Assets%20at%20Scale

259. Hence, constant innovation is deemed necessary for CRAs to effectively compete in the credit information market. It is crucial to note, however, that there are barriers to expansion in this market which can ultimately weaken the incentive and ability of certain providers to innovate.

260. For example, inaccessibility to certain datasets (eg, CATO or credit performance data) may hinder the ability of entrants to disrupt the market for credit performance data and products derived from this data. This, in turn, adversely impacts the contestability of the market for such products as smaller CRAs are unable to impose an adequate competitive constraint on larger incumbents.

261. As a result, incumbent providers may not be as incentivised to improve their product lines and processes as they may have been in the absence of such barriers. This is because, under a counterfactual scenario of fewer or no barriers to entry and expansion, the viability of challenger CRAs may result in more fierce, non-price competition. We explore barriers to entry and expansion in more detail in Chapter 5.

Quality of CRA data

262. Our analysis of CRA data finds that the quality of credit information held by the three large CRAs is, in general, satisfactory. However we have identified significant differences in the data held by the three large CRAs. These differences can adversely impact the effectiveness of CIUs' decisions, in turn affecting consumer outcomes. This report's Data Quality Annex goes into more detail on this element.

263. CIUs care about data quality and this informs their choice of CRA. However, CRAs may need to balance different aspects of data quality. For example, CRAs may have to trade off accuracy for improved coverage, where they find that improving accuracy (through additional checks to lenders) may create a deterrent for lenders to contribute their data (ie an increased marginal cost of contributing data).

264. While we understand that competition is providing some incentives to CRAs to improve the quality of their products, there are certain features of providing credit information which can make it challenging for CRAs to do so.

265. These include:

- Matching data to the right individual is a difficult process. CRAs may get feedback from CIUs that their matching rates are poorer than other CRAs, but it is inherently difficult for CRAs to improve match rates.
- CRAs may be inconsistent in categorising credit performance data reported to them by lenders, and they may receive data in different ways from different lenders, thus categorising that data slightly differently. For example, arrears may be reported in different ways by lenders and recorded slightly differently by CRAs.

These factors are difficult for any one CRA to overcome. We set out our analysis of the significance and impact of differences in credit information data held by the three large CRAs in this report's Data Quality Annex.

Risks of coordinated conduct between the three large CRAs

266. In this section we analyse whether there is a risk of coordinated conduct between incumbent providers of credit information. To do this we adopt the CMA's (previously Competition Commission) coordinated conduct assessment framework[52] to come to a

[52] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/284390/cc3_revised.pdf paragraphs 237-261

judgement on the likelihood of coordination in the credit information market. Below is a summary of our conclusions.

267. Several market features in the supply of credit information appear to be conducive to coordination between incumbent CRAs. This is a concentrated market, with substantial barriers to entry and, to an extent, symmetric cost structures, with consistent demand growth and pro-cyclical demand fluctuations. Although there is a degree of product differentiation via innovation, the three large CRAs' product lines are relatively homogeneous (we do have some examples of niche offerings to the contrary, however). We know that the large CRAs monitor each other closely (which is consistent with both coordinated and competitive outcomes). The CRAs also explicitly and frequently interact in the market via SCOR.

268. Other market features are not conducive to coordination. There is evidence that the market exhibits dynamic competition via innovation (eg, a consistent supply of new products for CIUs), and there appears to be a degree of buyer power during procurement processes, often enabled by CIUs' investments to facilitate CRA-agnostic strategies.

269. There is no strong evidence suggesting that CRAs are carving up significant product or geographic markets. Further, incumbent CRAs have experienced a decline in their levels of profitability over time, which is inconsistent with sustained and successful coordination.

270. Accordingly, whilst there are some market conditions conducive to supporting coordination, we do not currently have the evidence that would support a finding that there has been coordination between incumbent CRAs. Below we apply the CMA's coordinated conduct framework:

High concentration facilitates collusion

271. Coordination is more difficult when there are many firms in a market. For example, many firms will struggle to reach a mutually beneficial consensus, as well as share a relatively smaller proportion of collusive profits.

272. There are three large CRAs in this sector, hence it is heavily concentrated. This would make coordination easier.

Symmetric market shares can make collusion more sustainable

273. Symmetric market shares reflect more profound and relevant symmetries (eg, regarding costs) which can facilitate collusion. This has changed over time as TransUnion has been able to grow its market share over the previous decade.

274. Market shares amongst the three large CRAs are not symmetric (2020 data):

- Experian 69%
- TransUnion 16%
- Equifax 15%[53]

High entry barriers facilitate collusion

275. Collusion is more likely to be sustained in the presence of high entry barriers. Collusive, abnormal profits would be eroded in the absence of entry barriers. Firms are then more tempted to undercut collusive prices and the ability to collude thus declines when the likelihood of entry increases.

[53] Market shares are based on public data, eg, statutory accounts data, which do not factor in the impact of company restructuring and mergers and acquisition activity in the UK on revenues.

276. There are substantial entry barriers in the provision of credit risk products which can sustain collusive practices, for example:
    - economies of scale
    - network effects
    - access to credit performance data
    - switching costs

277. These are discussed further in Chapter 5 below.

Frequent market interaction facilitates collusion

278. Firms will find it easier to sustain collusion when they interact more frequently; firms can then react more quickly to a deviation by one of them. Therefore, retaliation can come sooner when firms interact more frequently.

279. The three large CRAs meet directly on SCOR at least bi-annually. This often involves discussing new industry developments and members' views on them, as well as voting on changes to existing rules. For example, the three large CRAs collaborated to on-board BNPL data. To note, if it is a proprietary product innovation or similarly confidential, these are not discussed by the CRAs. This exchange between CRAs can give rise to efficiencies that benefit consumer welfare by mitigating asymmetric information about consumers, as well as enhancing consistency in approach by the CRAs in order to deliver good outcomes in lending markets.

Market transparency facilitates collusion

280. Collusion can be easier to sustain when individual prices are readily observable and can be easily inferred from readily available market data. The harder it is to obtain data on prices and quantities, the harder it may be for the firms to work out, without explicit collusion, what would constitute a monopoly price.

281. There is an absence of an easy mechanism by which competitors can infer another CRA's pricing plan accurately. The market has buyer power, to an extent, and so prices are not constant over time nor homogenous among incumbents.

282. Nevertheless, a feature of the market is the competitive tender process. If a CRA loses out during a tender to a competitor, it may be able to infer that its competitor was offering a more competitive price (albeit other factors, eg, data quality, are also deciding factors on CRA choice).

Demand growth enables collusion

283. Collusion is easier to sustain in growing markets, where present profits are small compared with future ones. On the contrary, where the market is on the verge of collapsing, there is almost no "future" and therefore no possibility to induce firms to stick to a collusive conduct.

284. Financial analysis shows that the market, in terms of overall revenue, has been growing over time. This may change in the long-term if CRAs' services are deemed less of a necessity, for example if the growth of products derived from Open Banking threatens incumbent CRAs' traditional product lines as a viable substitute.

Business cycles and demand fluctuations hinder collusion

285. Collusion is more sustainable in markets that do not feature demand fluctuations.

286. The demand for CRAs' services is pro-cyclical, as it is conditional on activity in lending markets.

287. Demand for CRAs' services is essential to lenders' operating models. Given the pro-cyclicality of lending markets, demand for CRAs' services is relatively predictable and does not suffer from significant, unanticipated volatility.

Collusion is more difficult in innovative markets

288. Innovation makes collusion on prices less easy to sustain. The reason is that innovation, particularly ground-breaking ones, may allow one firm to gain a significant advantage over its rivals. This prospect reduces both the value of future collusion and the amount of harm that rivals will be able to inflict if the need arises. Collusion is thus less of a concern for antitrust authorities in innovation-driven markets.

289. Our financial analysis illustrates that the three large CRAs constantly invest to effectively compete in provision of credit information. Conversations with CIUs also emphasise that CRAs compete on the value-add they can provide through innovative products, eg to better assess credit risk, Open Banking, etc.

Cost asymmetries hinder collusion

290. Diversity in cost structures will rule out a common focal point in collusive pricing strategies and exacerbate coordination problems.

291. 2018 variable cost data illustrates that variable cost structures by cost type are relatively symmetric between two of the three large CRAs.

292. Evidence from 2020 total costs split by fixed and variable costs illustrate asymmetric cost structures between fixed and variable costs of provision across the three large CRAs.

Asymmetries in capacity constraints hinder collusion

293. Compared with a situation where all firms face the same capacity constraints, increasing the capacity of one firm at the expense of the others both increases the first firm's incentive to undercut the others and limits these other firms' retaliatory power. Overall, therefore, introducing such asymmetry hinders collusion.

294. There are not binding capacity constraints in the provision of credit information, as data is not a finite product. Capacity constraints may however materialise given the size of the firm (eg, number of staff).

Product differentiation

295. When firms are differentiated by levels of quality, collusion is more difficult.

296. Credit performance data appears to be a relatively homogenous product. The CRAs compete on the value-add they can provide through additional products and services they offer their clients derived from this data (eg, risk decisioning tools).

297. It seems these products tend to be close substitutes. We do however have a handful of examples of CIUs claiming heterogeneity of certain products; either that they differ among the large CRAs or do not exist elsewhere.

Multi-market contact facilitates collusion

298. Firms can sustain collusion more easily when they are present on several markets. For example, one firm may have a competitive advantage in one market and its rival can have its own competitive advantage in another market.

299. This point alludes to market carving in the market; both by activity and client type. We see the three large CRAs competing over creditworthiness products, ID & Fraud, credit information services (D2C), and other products. Hence the market does not appear to be carved (see Figure 1).

Other factors

300. Collusion can be more profitable when price elasticity of demand is low. If there are low levels of buyer power, the profitability of collusion is higher.

301. The use of CRA's credit information is a necessity for lenders to operate in lending markets. Hence, elasticity may be low. However, we know that CRAs compete during procurement processes via price and quality dynamics. Buyer power is higher where CIUs are able to threaten to switch – these tend to be larger lenders.

5 Demand side analysis & CIUs' role in driving effective competition

Introduction

302. The Competition and Markets Authority market investigation guidelines [54] (CMA guidelines) identify three broad categories of barriers to entry or expansion: 'intrinsic' barriers, such as network effects, economies of scale and switching costs; strategic barriers, such as 'first mover' advantages and bundling strategies; and regulatory barriers.

303. In this chapter, we consider whether entrant CRAs face some or all of these barriers when entering or expanding in the provision of credit information and explore what this means for the structure of the market and how competition works in the market.

304. Secondly, we review examples of past entry in the credit information market to assess whether such barriers are surmountable or are unduly blocking the competitive process.

305. Finally, we identify barriers to innovation, particularly the barriers to adopting Open Banking and other new data sources.

Intrinsic barriers to entry and expansion

306. The intrinsic barriers to entry into the credit information market we analysed are network effects, economies of scale, first mover advantages, switching costs, and the inability to access credit performance data.

307. Together, these reinforce low levels of contestability in the credit information market, making it difficult for challenger CRAs to exert viable competitive pressure on incumbents.

Network effects

308. Network effects are defined by the CMA guidelines as "where other customers committing to a particular product or service makes it more attractive to new customers… [this] may constitute a barrier to entry". Such effects can result in incumbents with an existing client base having an automatic advantage over entrants.

309. Network effects are a key barrier to providing credit performance data and products derived from this data. The value of a CRA's credit performance data is an increasing function of the CIUs that report to that CRA (this is often referred to as coverage). This network effect means that larger CRAs are able to achieve higher quality outputs and is an explanatory factor for the market concentration we observe.

310. In response to our RFI, all of the three large CRAs and three smaller CRAs that responded indicated the importance of having a good coverage of data contributors. Having the large banks as data contributors is particularly important given the substantial number of borrowers for which they can provide credit performance data on.

[54] https://www.gov.uk/government/publications/market-investigations-guidelines

311. Most large lenders report to all three large CRAs. A mutual benefit to the lending industry is cited as the reason for doing so (improved completeness of consumers' credit information). However, smaller lenders do not tend to do so, and on average only report to the CRA from which they buy credit information products as a result of the additional costs of reporting to the other CRAs.

312. In their responses to our RFI (26 responses to this question), data quality was the most frequently cited reason by CIUs regarding choice of CRA. This was followed by price, suitability for business needs, ease of integration, and reliability.

313. In our bi-laterals with and RFI responses from small CRAs, these providers outlined a key barrier in the provision of credit performance data and products derived from this data for them is convincing a sufficient number of financial institutions to contribute data to them. Only one small CRA collected credit performance data on individuals from financial institutions, focusing on the HCSTC sector. Even in this niche segment they were unable to achieve sufficient scale to be a viable alternative to the three large CRAs. CIUs told us they were reticent to provide data to, or use providers other than, the three large CRAs. They require a proven track record of strong data security and the onboarding of a large bank before they would consider using that CRA.

314. Other small CRAs do not collect credit performance data on individuals from financial institutions. Instead, they focus on providing creditworthiness products that do not leverage credit performance data – namely providing thin file solutions and affordability insights where they can use other sources of data (eg, Open Banking, data collected directly from the consumers as part of the application process, public and alternative data such as social media). Or they may partner with lenders and CRAs in order to build decisioning processes or credit risk tools (such as credit scores). We expect it is unlikely that these smaller CRAs will be able to grow their market share and provide a credible constraint on the three large CRAs in the provision of traditional credit performance data and associated products.

315. One large CRA informed us that if a large lender was to cease submitting data to them that would raise significant concerns regarding data quality. This substantiates the dual role of lenders in facilitating network effects which in turn enhance CRAs' data quality.

316. Hence network effects appear to represent a significant barrier to entry and expansion to challenger CRAs looking to compete in creditworthiness products derived from credit performance data who are not able to achieve the minimum scale to enable them to emulate incumbents' data quality. The implications of this are that the three large CRAs are unlikely to face a significant competitive constraint in the provision of credit performance data and products derived from this data from a potential new entrant which does not have a sufficient panel of data contributors.

317. Hence it becomes important to understand the effectiveness with which the three large CRAs compete with each other to retain and gain new clients (which we have set out in Chapter 4).

318. These network effects also suggest that the three large CRAs are incentivised to improve their coverage in order to compete head-on with one another. This is consistent with what we have heard from CIUs, who suggest that differences in coverage have been narrowing over time.

319. Network effects may mean that concentration is welfare-enhancing in terms of CRAs' data quality, specifically aspects of coverage and completeness. This applies to their creditworthiness products.

Economies of scale

320. We analysed firm financial performance to understand whether there are economies of scale in the credit information sector, that is, whether average costs fall as firms get bigger. Where economies of scale are significant, they can make entry or expansion on a small scale unprofitable, unless the firm focuses on serving a 'niche' in the market.

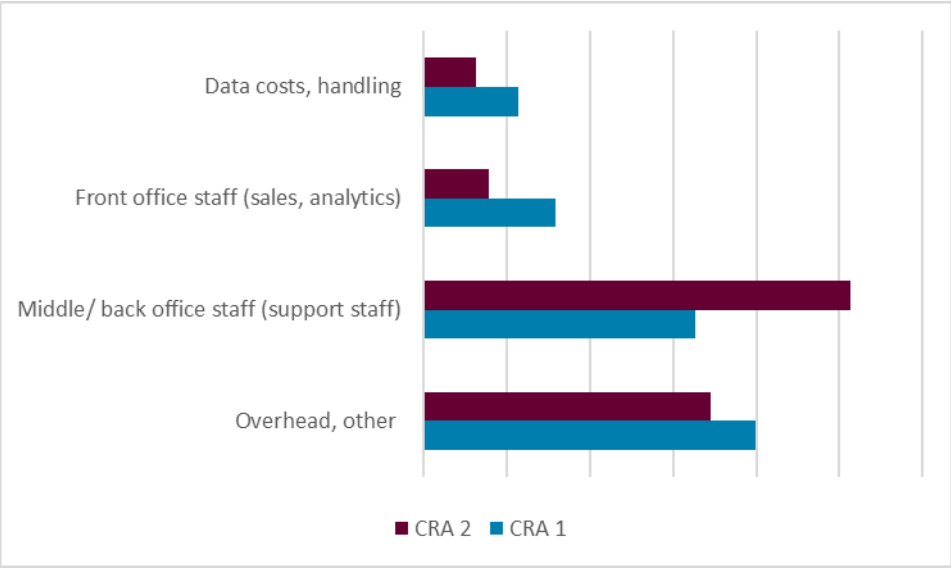
321. We analysed operating cost and CRAs' cost structures to help us assess whether there are returns to scale and if a CRA's structure is a factor in creating or strengthening barriers to entry or expansion. Taken together, cost analysis helps us to better understanding the supply side of the market as part of our competition assessment.

CRAs incur a range of costs comprising:

- data costs, covering both the cost of raw data and of the staff in charge of handling it
- additional staff costs, split between front office functions (such as sales and analytics) and other support functions (administration)
- overhead costs including IT infrastructures, property facilities and other group-wide recharges

322. Figure 16 illustrates a split of costs for two large CRAs.[55] Overhead costs, which are likely to be fixed costs, represent a substantial portion of the cost base in both instances (over 35%). We also note that staff related expenses are substantial, around half the cost the base, indicating that providing credit information services is labour intensive.

Figure 16: Breakdown of cost categories based on 2 CRAs (2020, share of total costs for the 2 firms)



[55] We did not include the third CRA due to an inconsistent cost allocation. Data has been collected on a best endeavour basis, so the quantification should be regarded as an indication of the order of magnitude. It is worth noting that firms have different accounting practices to recognise data related expenses, with varying degree of costs recognised as operating expenses or instead capitalised as intangible assets.

Source: FCA data request, chart provides indication of proportions rather than specific percentages

323. Given the lack of comparable volume metrics between different activities and across firms, we are unable to benchmark a unit cost between firms. This limits our analysis around economies of scale and comparative efficiency.

324. Looking at the UK statutory accounts of the three large CRAs, we observe a strong correlation between revenues, operating expenses and number of employees over a 12 year period. Between 2008 and 2020, revenues of the three large CRAs have grown at a 2.6% average annual rate, closely aligned with operating expenses increasing by 1.3% per year[56]. This could suggest that the portion of variable costs in this market is potentially higher than suggested by the proportion of overheads in Figure 16.

325. In the provision of credit performance data, the marginal cost of a search by an existing CIU is close to zero (once a firm operates at scale). It is similar to other software industries utilising intangible assets as production inputs[57]. The dynamic is however different for a marginal CIU, as the marginal cost of on-boarding a new client can be material. For example, CRAs increasingly tend to offer expensive retrospective analysis for free to gain new clients. A new client also needs to be onboarded, driving set-up costs, usually incurred upfront.

326. In other segments such as marketing and consulting, marginal costs are also material. They represent the time of high-value staff spent on dedicated projects.

327. Since CIUs value a CRA's data quality (eg, coverage and completeness), which is an increasing function of its data contributors (who tend to be its clients) as a result of network effects, smaller CRAs face larger client acquisition costs. For example, marketing expenses. For the large CRAs, a proven track record means that they are able to attract CIUs with relative ease.

328. The significance of fixed costs in large CRAs' cost base is a strong indicator of scale economies. As detailed above, overhead costs are a proxy for fixed costs and they represent a substantial portion of the cost base for 2 large CRAs. Such costs include IT infrastructure, property facilities and other group-wide recharges.

329. Significant fixed costs imply that firms providing credit information in this way need to reach a certain scale to cover their own costs, and benefit from lower average costs as they expand. It contributes to raising barriers to entry for new entrants, as they may have to operate at significant loss before reaching a certain scale.

330. Small CRAs have told us that commercial arrangements in the provision of credit information have pushed prices down to levels that make it only possible to compete at a sufficient scale. This highlights the importance of fixed costs (relative to market prices) which act as a barrier to entry and expansion.

331. Also, as data controllers under the GDPR, CRAs must exercise control over the processing of data and carry data protection responsibility for it. All large CRAs highlight the need to invest in infrastructures to hold and manage sensitive data as a barrier to entry. The large CRAs have also told us that considerable up-front

[56] Based on UK statutory accounts for Experian Limited, Equifax Limited and TransUnion International UK Limited. These legal entities do not fully capture the scope of the CRAs business in the UK. Hence the data series should be interpreted as a direction rather than an absolute level to compare between firms.

[57] The Furman review noted that: "Digital platform markets are characterised by strong economies of scale, where the high up-front investment and fixed costs of creating a valued service are coupled with low or near-zero marginal costs of additional users".

investment in data and technology is required to provide traditional creditworthiness products.

332. However, the lack of comparable volume metrics across the market prevents us from benchmarking unit cost between firms. For instance, we are unable to quantify how average cost varies with size over time, at firm level, and compare this metric across market players.

333. Consistent with what we would expect for markets with significant economies of scale, we have evidence that smaller CRAs that are providing creditworthiness products are struggling to break even and all of them are focusing on 'niche' parts of the segment (focusing on those areas that don't require collecting credit performance data from financial institutions, such as affordability and thin file solutions). [58] We have evidence that even a CRA that entered at scale took 7 years to break even.

334. Overall, we conclude that to effectively compete across the suite of credit information services, firms are likely to experience scale economies as a result of significant fixed costs of production. This implies that firms providing credit information need to reach a certain scale to cover their costs and compete effectively on price. It contributes to raising barriers to entry for new entrants, as they may have to operate at a loss before successfully reaching a certain scale.

335. Notably, CRAs' marginal costs have been rising, due to a changing revenue mix. This has moderated the potential economies of scale that large CRAs disproportionately benefit from. Diversification impacts costs in two ways. First, marginal costs on diversified activities may differ from those for core activities. In addition, firms may be able to generate additional revenue from diversified activities based on fixed costs already incurred.

Strategic barriers to entry and expansion

First mover advantage

336. The established position of incumbent firms in the market can create an entry barrier. The CMA refers to this as 'first mover' advantages. They can make it difficult for other firms to enter a particular industry because an established reputation is necessary to compete effectively. This is the case in the provision of credit information.

337. From our information request responses and bi-laterals with the smaller CRAs, FinTechs and other firms operating in the credit information sector, we heard that building tenure and a strong track record is a key challenge for new entrants when competing against the three large CRAs. Not only can it create a barrier to entering the credit information sector, but it can also create barriers for firms operating in the sector to grow their market share outside of 'niche' areas.

338. We established that large CRAs' relationships with clients average around 10 years, with average contract lengths of between 3-5 years. Demonstrating a track record in terms of products' predictive power, data security and service reliability are important factors to clients and large CRAs leverage their relationships with lenders when competing for clients. In addition, a number of CIUs will not consider a new CRA as a potential provider unless they have successfully onboarded a large bank.

339. Raised security standards around data mean that CIUs are increasingly risk averse when it comes to trusting organisations with their data. One data contributor indicated that it would only provide their consumer data to an alternative large CRA after

[58] 2 firms are loss-making at operating profit level, and another one is at break-even point.

extensive due diligence of their security processes. A breach would not only have a negative impact on the CRA subject to the incident, but potentially also on the provider who first shared these consumer data. As noted above, this is a key barrier to financial institutions sharing information with smaller CRAs.

340. Incumbency advantages also arise from large CRAs' integration with clients' IT systems. This is also a switching barrier for CIUs. We explore this further below.

High switching costs

341. Our analysis on switching and barriers to switching was introduced in Chapter 3. Below we consider the impact barriers to switching have on barriers to entry and expansion for challenger CRAs.

342. We have established in Chapter 3 that small and large CIUs can face barriers to switching CRAs. For example, due to costs associated with internal IT changes. Many large CIUs have adopted multi-bureau strategies in order to mitigate these barriers, in turn also strengthening their buyer power as a result of a viable threat of switching.

343. Notably these multi-bureau approaches do not, in general, include utilising other CRAs except for the three large CRAs. As a result, large CIUs may expect to face larger switching costs to challenger CRAs relative to the incumbents. This limits challenger CRAs' ability to attract business of a sufficient volume for significant expansion.

344. Based on the data we collected in 2018 for three small CRAs, they were either loss-making (2 providers) or at break-even point after operating costs (1 provider). Using the limited publicly available financial data and information from firm meetings, it appears that this picture was largely unchanged in 2020.

Access to credit performance data

345. In our bi-laterals with smaller CRAs, all of them raised the importance of access to credit performance data. Access to this data is important for new entrants or current providers looking to expand their share of the market on two fronts. It is necessary to help them to develop new creditworthiness products, for example, to assess credit risk, as well as to help them demonstrate the accuracy with which their data and products can assess credit risk to prospective clients (proof of concept).

346. New entrants do not have access to credit performance data in the same way that the large CRAs do, making it difficult to demonstrate their value to prospective clients. Retrospective analyses (so-called 'retros') are one way of doing this, and require access to credit performance data. In many cases the three large CRAs perform such analysis for free, particularly for larger (high-volume) clients and where clients are using the data to select a CRA.

347. Lenders' T&Cs provide privacy notices to consumers which allows them to share data with CRAs without explicit consumer consent. In many cases these refer directly to the current three large CRAs and do not permit sharing with newer CRAs (because such firms did not exist when the T&Cs were drafted). This prevents small CRAs from accessing individuals' credit performance data.

348. Lenders may also not believe it is appropriate to share consumer data with such firms, for example if they think it is unnecessary under data sufficiency or cannot be sure the data will be stored or used responsibly by the third party. Lenders do not appear to have an incentive to share data with smaller CRAs. The marginal cost of reporting to

them does not appear to be dwarfed by a significant benefit. This is explored further in the section below on regulatory barriers.

349. However, smaller credit information providers are attempting to overcome difficulties in accessing credit performance data through partnering with CRAs, or partnering with CIUs.

350. **Partnering with CRAs**: this appears to be the most commonly used approach. A key drawback is the CRA can impose restrictions on the data they can use or the clients they can compete for.

351. **Partnering with CIUs:** working with lenders directly can be one way that smaller credit information providers can get access to CIUs' credit information, so they can test proof of concepts. However, CIUs tend to be reticent to do this, as they have to invest before the value of the provider's proposition is demonstrated. There may also be restrictions in T&Cs with consumers or other data protection considerations that restrict lenders' ability to share data with third parties. However, even with these drawbacks we have seen some (limited) successes of such partnerships being effective.

Product bundling and tying

352. Product bundling involves multiple products that are sold together or one product that is provided free with a core/essential product. This makes it difficult for competitors that only offer one of the bundled products or the tied product (mandatory bundling) to entice clients to switch to them.

353. We have not seen evidence of tying in the provision of the various product lines CRAs offer. However, CRAs' pricing strategies do exhibit a degree of bundling.

354. This has two possible adverse implications. The first is that competition in the downstream lending market could be adversely affected if larger lenders have cost advantages as a result of benefitting from CRAs' bundling strategies relative to their smaller counterparts. Larger CIUs tend to buy a spectrum of services from CRAs and often receive volume discounts. We have explored this already in Chapter 3.

355. The second is that bundling practices by the three large CRAs can be used to profitably exclude potential competitors from one or more bundled products. Such bundling practices could affect the degree of competitive threat challenger CRAs can impose on incumbents, as they may not be able to emulate this strategy to compete and hence struggle to attract clients away from the three large CRAs. The impact may be more pronounced given the economies of scale CRAs experience.

356. Given that small CRAs do not tend to compete in the provision of credit performance data and products derived from this data (as they do not tend to be able to access this data), the impact bundling strategies by incumbent CRAs has on challengers is likely minimal for this product line.

357. Given that small CRAs chiefly compete in the provision of products derived from Open Banking (for example, to facilitate affordability insights), the impact of incumbents' bundling strategies may be more acute for this product line.

358. From our conversations with the three large CRAs, we have learnt that they are increasingly offer products derived from Open Banking, potentially bundling these with credit performance data and related products. This can potentially lead to a degree of

foreclosure, if challenger CRAs are unable to effectively compete on price (for example, due to scale economies).

359. Nevertheless, we are not seeing evidence of this. We see some uptake of challenger CRAs' services by lenders interested in insights derived from Open Banking data. Looking forwards, as Open Banking continues to grow, possibly extending into open finance, this could result in products derived from Open Banking data becoming a significant driver of a CRA's revenue, displacing the current status quo. Given the large CRAs' incumbency advantages, bundling strategies by these CRAs may increasingly, adversely affect the viability of challenger CRAs looking to grow their market share.

360. This is supported by the fact that the three large CRAs tell us that they see Open Banking as the main potentially disruptive technology to the status quo in the provision of credit information. Hence they are likely to have an incentive to bundle this product line with others in an effort to sustain their market share in the medium- to long-term, thereby potentially foreclosing new entrants.

361. In our bi-laterals with smaller CRAs, they did not suggest that the three large CRAs bundling their products was making it difficult for them to enter or expand in certain market segments. CIUs' responses to our RFI suggested that they often buy different products from different CRAs. This mitigates the extent to which bundling can adversely affect (dynamic) competition.

Regulatory barriers to entry and expansion

Data protection can restrict new entrants' ability to access credit performance data

362. These rules can exacerbate challenger CRAs inability to effectively compete in the provision of credit performance data and products derived from this data.

363. Changes to data protection legislation since 2018 (Data Protection Act 2018) represent a significant change compared to the previous decade, and new entrant CRAs (and incumbent CRAs) will all need to comply with these obligations.

364. Leveraging Open Banking technology is one the main ways challenger CRAs compete in the market. An important input into Open Banking products is data on consumer identifiers. Firms looking to use Open Banking data have told us that information on consumer identifiers is essential in order for them to undertake the data matching needed and that this information is not included in the Open Banking requirements and therefore the specifications [59] for Account Holder Information based on said requirements.

365. These firms have also told us that the payment account providers (often banks) have been unwilling to provide this information to them directly, which means that firms looking to use Open Banking data may at present be reliant on the incumbent CRAs to provide this data. This potentially acts a barrier to entry and expansion for firms offering Open Banking services, stifling competition. In particular, control over the identity information could give the large CRAs the ability to raise challenger CRAs' costs and limit the extent to which they can compete, as they have the ability and incentive to foreclose this important input into challengers' Open Banking offerings. However we note this may evolve as the industry and relevant authorities (namely FCA, CMA, PSR and HMT), under the newly formed joint regulatory oversight committee, consider the next steps regarding Open Banking.

[59] See https://www.openbanking.org.uk/

Evidence of past entry

366. Historically, the only entrant into this market at scale and offering a similar proposition (credit performance data and related products to assess credit risk) to the two established CRAs, Experian and Equifax, has been TransUnion. TransUnion was aided into the credit information market by the industry.

History of TransUnion

CallCredit, which was subsequently purchased by TransUnion, was formed in 2000 as part of the Skipton Information Group. It has been able to grow its market share to become the second largest CRA (in 2020), overtaking Equifax.

TransUnion's success is attributed to two key factors. First, the firm was aided by large lenders, guaranteeing an initial access to data contributors and clients (on the former, some banks agreed to report credit performance data to TransUnion which they previously only reported to Experian and Equifax). Second, it adopted a differentiated product strategy, targeting areas under-served by the two large CRAs, such as high-cost short term credit lenders[60] by offering real-time credit data solutions. It also offered innovative products in the affordability space, through its exclusive access to CATO data between 2006 and 2012.

367. TransUnion's initial sunk cost was significant, only returning a profit at operating profit level in 2007, waiting seven years to reach its break-even point. It took many years for TransUnion to win contracts from many of the large lenders who did not aid its entry, primarily due to the significant switching costs faced by large CIUs. Once it was able to do so, however, its status as a disruptive competitor was solidified and it was able to erode Equifax and Experian's established incumbency.

368. Outside of TransUnion's entry, there a range of smaller CRAs who have entered. Their products are generally seen by both CIUs and the CRAs themselves as a supplement to traditional credit performance data (and associated products). These firms have been struggling to grow their market shares and still have a very limited footprint.

Smaller CRAs and other FinTech firms still have a very limited footprint:

Smaller CRAs tend to focus on under-served areas of the market. For example, they provide thin-file solutions such as credit scores for borrowers with limited credit history (for example, students), utilising 'alternative' data (such as Open Banking data). They also offer services aimed at specific sectors, such as the gambling industry. Most are harnessing new technological developments to offer unique propositions outside of the traditional CRA model.

[60] The vast majority HCSTC lenders, at the time, only used and reported to TransUnion. This enabled TransUnion to develop a comparative advantage over its rival CRAs in terms of the credit performance data provided to lenders serving similar consumers. This is a result of network effects (specifically in this example, related to coverage) affecting credit performance data.

Across the wider market, there has been entry by other companies, many coming under the heading of "fintech firms" or part of large global institutions. They offer complementary propositions such as technology supporting multi-bureau solutions, or analytical consultancies building risk scorecards (ie without needing credit reference permissions). Most focus on specific areas, for example identity management solutions, data analytics or commercial credit information. None cover entire spectrum of activities from traditional CRAs. Many are part of large global institutions.

369. To some extent, the conditions that allowed for entry are still prevalent today - strong underlying growth in the credit information market and CIUs' appetite for additional data and innovative products could occur today, in the case that the three large CRAs do not continue to innovate and meet CIU needs.

370. Alternative and/or complementary data sources represent an opportunity for further entry. The use of Open Banking can encourage both start-ups and existing organisations to develop products to assess consumers' creditworthiness, including solutions to better assess thin file consumers and affordability, complementing data from other sources.

371. In our data request, the large CRAs considered Open Banking to be a key driver to materially reduce barriers to entry by fostering innovation in the market. This view is also shared by smaller CRAs. Many CIUs felt that a different business model can potentially emerge in the long-term to monetise new data sources such as Open Banking, but it requires significant IT investment by CIUs if they wish to by-pass using the three large CRAs.

What is Open Banking?

Open Banking was designed to increase innovation and competition in banking and payment services. Along with the revised EU Payment Services Directive (PSD2), it introduced a secure environment enabling customers to consent to third parties accessing their payment account information or making payments on their behalf.

In the UK, the Payment Services Regulation require all payment account providers to enable access to customers' accounts, with the customer's explicit consent, to third party providers that must be authorised (or registered) with the FCA. This includes account information and payment initiation activities. Account information service providers have access to customers' account data, which they can extract and use to provide products and services.

In addition and building on the upcoming new open banking requiremnts, in January 2018, the Competition and Markets Authority (CMA), following a market investigation into retail banking services, ordered the UK's nine biggest current account providers to fund and create an open banking entity that would develop standards to be adopted by these firms. Standardised application programme interfaces enable easier access and data sharing.

Many CIUs indicated that Open Banking will give them access to more granular data that can be used to make assessments both at point of origination and as part of ongoing customer management. This can enable them to price more accurately, reduce defaults and potentially negotiate more successfully when setting up repayment plans.

376. The three large CRAs have invested in developing their own products derived from Open Banking, but these still look to be in their infancy. Smaller credit information providers and Fintechs have carved out a niche for themselves. For example, using consumer transaction data from Open Banking to build credit scorecards and affordability metrics, thin file solutions or to develop decisioning software.

377. Incumbent, large CRAs potentially hold competitive advantages over challengers, for example:

- established trust and vertical integration between CRAs/CISPs could deter switching and/or make it easier for large CRAs to obtain consumer consent
- they benefit from economies of scope (eg, existing commercial relationships and products)
- they could also bundle products derived from Open Banking with traditional service offerings

378. However, we heard there are challenges in making best use of alternative and Open Banking data sources, hence limiting the expansion of new entrants. First, gaining consent from consumers to access their bank account information may be difficult for new entrants. We note that Open Banking uptake is improving, but still insufficient for lenders to completely by-pass traditional data obtained from the three large CRAs as a result of limitations regarding the data it currently provides.

379. Second, ID matching for Open Banking data is challenging. Payment account providers are required to share the name but not to provide full details of an individual, although there are standards in place that can be used if payment account providers wished to share that data. A statement obtained via Open Banking is not equivalent to a statement issued by the provider (unless it contains full identity information). Original statements (commonly used to verify income and employment details) require this detail, so the lender can verify the account genuinely does belong to the applicant.

380. Finally, and as mentioned above, access to credit performance data may inhibit new entrants from creating credit risk products and metrics (such as credit scores) from Open Banking or alternative data sources. However we note this may evolve as the industry and relevant authorities (namely FCA, CMA, PSR and HMT) under the newly formed joint regulatory oversight committee consider the next steps for open banking.

381. Credit performance data is necessary to both develop a credit risk product (to test that it works) and it is necessary to be able to demonstrate to potential clients the performance of their products relative to competitors. This may prevent a rival 'non-CRA business model' that does not rely on credit performance data from emerging. One smaller CRA that we talked to believed that given new data sources, a 'rival model' is feasible.

Barriers to innovation

382. CIUs, small and large CRAs identified three key barriers to innovation. The difficulties in accessing credit performance data which makes it difficult to develop and test new credit risk products and may also adversely the impact the incentives to innovate faced by the three large CRAs. The second is barriers to using Open Banking. Finally, there is a risk that SCOR may entrench the status quo, dampening the incentives to innovate. We discuss this below.

SCOR may entrench the status quo

383. Trade associations and industry bodies represented on SCOR are the British Retail Consortium (BRC), Consumer Credit Association UK (CCA), Consumer Credit Trade Association (CCTA), Credit Services Association (CSA), Finance & Leasing Association (FLA), Mobile Telcos, Water UK and UK Finance. The credit reference agencies represented on SCOR are mainstream credit reference agencies Experian, Equifax and TransUnion.

384. Smaller CRAs and consumer interest groups are not represented on SCOR. We have heard from a challenger CRA that they encountered significant hurdles in joining SCOR, and as such were unable to. Full SCOR membership is in principle open to other CRAs, however they must first demonstrate a certain scale of operation. Hence a number of firms which operate as CRAs on a small scale are not represented on SCOR.

385. While SCOR is seen as important in establishing data sharing protocols, there is a recognition from market participants that its limited mandate, current membership and voting systems creates a number of risks:

- In general terms, the wider interests of the market and consumers may not be fully taken into account.
- Given current members tend to be larger complex organisations that have invested heavily in their IT systems and structures, members may be reticent to get behind new innovative ways of working that do not fit within their current infrastructure.
- SCOR's unanimous voting system is also a barrier to innovation, if the change is not in the interest of all the direct members of SCOR. This may contribute to slow adoption of new innovations and technologies that may benefit consumers and CIUs.

386. Although there is innovation in the market, some market participants have told us that new technologies and market developments are not getting traction, at scale, in a timely manner[61]. Part of this is driven by frictions in the market, such as the complexity and scale of both lenders' and CRAs' operations, which make adoption of new technologies slower than they could be.

[61] Some exceptions include Open Banking and BNPL.

Appendix 1 – Financial Analysis

Methodology & Data

387. We carried out an in-depth financial analysis of the three largest credit reference agencies (CRAs), Experian, Equifax and TransUnion. These players together represent the majority of the credit information market, especially in the provision of core credit risk data and decisioning services. They are also representative of different models in this industry in terms of scope.

388. We collected data twice; initially as part of the main project in 2019 and then in 2021 prior to publication to update our analysis.

389. We first collected annual financial data over a 5-year time horizon, from 2014 to 2018 for the three large CRAs and three small CRAs (Crediva, Credit Kudos and Aire).

390. The three small CRAs are micro firms[62]. Given their limited scale and client coverage, they all have a negligible market share. Their inclusion in the market study allows us to cover different firms in terms of size and vintage. But we use their data more anecdotally in the study.

391. We asked firms for financial data covering revenue, operating costs and balance sheet data. We also asked for information such as the number of underlying searches raised by clients per year.

392. To update our analysis, we collected financial data and volume data for the years 2019 - 2021 from the three large CRAs. As we collected off the shelf data there is some discontinuity with the initial dataset. Our updated analysis was done on a best endeavour basis.

Important considerations related to the underlying data

393. Firms were able to provide a breakdown of core revenues (credit risk data and decisioning tools) and other segments. However, they could not provide a similar breakdown of their cost base. Hence, we have focused on the analysis of revenue and of the overall profitability of firms. But we could not carry out a profitability analysis at segment level.

394. 1 firm could not provide revenues for the entire time horizon due to business consolidation and discontinuity in IT systems. As a result, we complemented our analysis with statutory accounts published in the UK. This allowed us to better understand recurring and non-recurring items for this firm. More broadly, we also use statutory accounts to retrieve a longer time series for revenues and operating costs, hence covering the economic cycle since the 2008 financial crisis. We recognise that these legal entities do not fully capture the scope of the CRAs business in the UK. Hence the data series should be interpreted as a direction rather than an absolute level to compare between firms.

395. There were challenges around the firms' ability to provide balance sheet metrics. For 1 firm, we could derive underlying capital base for the UK based on the accounts from the listed, global company. Yet, it was disproportionate to do so for the other 2 large CRAs because they do not segment their business in the UK as a separate operating business, rather consolidated within EU operations. Determining the economic

[62] As per the European Union definition

resource base (capital employed) underpinning return on capital employed (ROCE) was thus difficult for the UK. To complement our analysis, we look at ROCE at global, group level, based on the accounts of the listed parent companies. We have clearly indicated throughout the financial analysis the scope of the analysis (ie at UK level or at global level). As Experian is the largest CRA business in the UK, an assessment of their returns in comparison to a benchmark rate would provide an indication of market power.

396. The introduction of IFRS 15[63] in January 2018 affects the comparability of metrics such as operating profit margin and return over time. Yet, the revised accounting standard was applied concomitantly for all firms, hence not biasing our analysis for any one specific player.

397. Overall, we are confident that we can reach robust conclusions on firms' incentives using revenue analysis, operating profit margin and returns. More generally, we believe that the metrics used in this study allow us to have a fair assessment of firms' performance. This is because we have produced a range of returns, taking into consideration accounting irregularities and cost allocation methods, over an economic cycle thereby eliminating temporary effects of market power and compared this to a cost of capital produced by external equity researchers and the CRA firms.

398. To protect the confidentiality of firm information we typically show market averages to reflect financial performance across the industry. Where results are notably different between different firms, we also note ranges and levels of variance in the sample data.

Capitalisation policies for CRAs and their impact on our financial analysis

399. Large CRAs predominantly rely on intangible assets to operate. The CRA business model rely on a large portion of intangible assets, rather than physical assets included in property plant and equipment. In general, intangible assets are non-monetary assets which are without physical substance and identifiable (either being separable or arising from contractual or other legal rights). In the context of credit information, such intangible assets include acquired and augmented credit data, human capital, client relationships, brand and proprietary knowledge. Due to the significant M&A activity in that space over the last 20 years, goodwill is also sizeable.

400. Intangible assets represent over 70% of total assets at end 2018 for all CRAs. Goodwill alone represents around 50% total assets, compared with a mere 9% of total assets for S&P 500 companies on average[64].

401. Understanding the economic and accounting implications related to these intangible assets is important when considering appropriate measures of economic profitability for the credit reference agencies because differing accounting judgement may be applied to the recognition and measurement of intangible assets distorting profitability amongst the CRAs.

Intangible assets raise specific challenges for the financial analysis

402. We see 3 main challenges raised by the sheer weight of intangible assets on CRA's financial statements.

[63] IFRS 15 relates to revenue recognition and associated costs https://www.ifrs.org/issued-standards/list-of-standards/ifrs-15-revenue-from-contracts-with-customers/

[64] https://www.ifrs.org/news-and-events/news/2018/12/speech-are-we-ready-for-the-next-crisis/

Differing level of recognition on the balance sheet

403. Accounting practices can differ in many ways which can impact the level of recognition on the balance sheet:

404. Not all economic assets employed in the running of operations may be included on firms' balance sheets.

405. If they are included, the values of such assets may not reflect their economic value. For instance, accounting rules prohibit the recognition of certain costs such as marketing that are involved in building client relationships or an untrademarked brands[65].

406. We may observe assets recorded on the balance sheet that do not represent separately identifiable economic assets or whose accounting valuation chrysalises purchase price[66] rather than replacement values. For example, total assets can include some goodwill, following a business acquisition.

Differing useful lives

407. We may also encounter comparability issues with firms attributing different useful lives for some assets. This would be most problematic when the asset in question appears to be of a like-for-like nature. We provide 2 examples specific to large CRAs. Figure 14 compares the useful lives of main fixed and intangible assets relating to data. Figure 15 compares the useful lives attributed to customer relationships.

Differing useful lives for key assets relating to data

Experian		Equifax		TransUnion	
Intangible assets	**Useful lives**	**Intangible assets**	**Useful lives**	**Intangible assets**	**Useful lives**
Databases	3 - 5 years	Purchased data files	2 - 15 years	Databases and purchased datasets	3 - 10 years
Internal-use software	3 - 5 years	Acquired software and technology	1 - 10 years	Acquired software	3 years
Internally generated software	3 - 10 years	Proprietary database	6 - 10 years		
		PP&E		**PP&E**	
		Internal-use software	3 - 10 years	IT Equipment and servers	3 - 5 years

Source: FCA data request

Differing useful lives for customer relationships

Experian		Equifax		TransUnion	
Intangible assets	**Useful lives**	**Intangible assets**	**Useful lives**	**Intangible assets**	**Useful lives**
Customer relationships	2 - 25 years	Customer relationships	15 years	Customer relationships	4 - 5 years

Source: FCA data request

Differing accounting treatment

408. We might also encounter issues of comparability in respect of the designation of costs. Another relevant example would relate to the treatment of research costs (which are generally expensed in the year), as compared to development spending (which are capitalised as an asset and amortised over their useful life)[67].

Firms' maturity acts as a countervailing factor

409. The maturity of firms in our analysis acts as a countervailing factor to discrepancies introduced in financial accounts. More mature firms often reach a steady state, with

[65] As prescribed in IAS 38 standard https://www.iasplus.com/en/standards/ias/ias38. The exception being in instances where they are separately identifiable on acquisition of a business combination, as prescribe in IRFS 3 https://www.ifrs.org/issued-standards/list-of-standards/ifrs-3-business-combinations/

[66] Purchase price may include an acquisition premium

[67] As prescribed in IAS 38 standard https://www.iasplus.com/en/standards/ias/ias38

capitalisation more commensurate with amortisation in a given year. In contrast, start-up firms typically are in a high growth state and require large upfront capital investments often at a high proportion of revenues. Firm maturity consequently reduces the impact of divergence in useful lives for like-for-like assets and the capitalisation or expense of certain costs as a longer record of financial data will assist in eliminating any one-off discrepancies borne through changes in accounting policies or large capital projects.

410. Firms under review have all been established for some time. Despite operating in a growing and dynamic market, they have reached a relative state of maturity, based on market shares, revenue streams and proprietary offerings. This is important as more mature firms generally have some regularity in their capital expenditure budgeting cycle and therefore tend to spend similar amounts each year.

411. We can evidence some of these points specifically for the credit information market. The proportion of intangible and tangible assets in the total mix has been relatively consistent for all large CRAs[68]. In Experian's instance, its amortisation level also broadly either commensurate or lower than its capitalisation each year[69]. We also observe a converging, stable recurring capex (see Figure 16). Yet, the need for raising investment in relation to data protection and security for a firm like Equifax is a limiting factor.

Impact on our financial analysis

412. In our financial analysis, we use EBIT margin to assess operating profit, rather than customary EBITDA margin. The primary objective was to reflect and account for different accounting treatment of data-related spending.

413. In terms of return analysis, we complement our approach of unadjusted accounting ROCE (asset base valued in line with its book value) with alternative valuations of the asset base, to derive an economic ROCE. The objective is 2-fold. First, we aim at valuing intangible assets to a level closer to replacement value. Second, we want to strip-out from the asset base any element potentially reflecting the firm's ability to raise prices above the competitive level, if any.

414. Yet we recognise that some adjustments could be considered appropriate at the EBIT level as well, such as the reversal of spending linked to potentially undervalued and unrecognised intangible assets such as customer relationships. Yet, given the lack of data, we could not adopt this approach.

415. Overall, we are confident that EBIT margin and return on capital employed are appropriate indicators to assess profitability in this market. We cannot fully adjust for variation in different accounting practices. Yet our approach limits their impact, allowing us to derive meaningful conclusions from these key financial metrics.

[68] Share of intangible within total assets has ranged between 72% and 85% for the three large CRAs over the last 5 years, based on Experian PLC (annual report), Equifax Inc. (10-K) and TransUnion (10-K)

[69] Ratio of capital expenditures over depreciation and amortisation has ranged between 93% and 135% over the 5 years 2016-2020 for Experian PLC (annual report)