

TO SCORE AND TO PROTECT?

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Title:

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BIG DATA (AND PRIVACY) MEET S.M.E. CREDIT RISK IN THE U.K.

Article category:

Original Article

Summary:

- Recent UK legislation facilitating the credit scoring of SMEs using Big Data techniques and Open Data sources threatens to further hollow out information management norms and data subject rights enshrined in privacy and data protection law just as it is gathering unprecedented momentum in courts and on statute books across the EU.
- After examining the economic rationale for such measures and their envisaged impact on the credit risk industry, we argue that the associated regulatory re-shuffling and privacy-related safeguards are highly unlikely to address adequately the serious accuracy, transparency and accountability concerns of individual data subjects.
- Would the effective, full enforcement of data protection principles and data subject rights really cripple the credit reference industry to the detriment of the nascent economic recovery, or is there a middle path and will the forthcoming EU General Data Protection Regulation provide it?

Keywords: Credit scoring, Big Data, UK data protection, EU law, Open Data, privacy



I. INTRODUCTION

With the greatest depth of available credit information in the world, the UK is leading the EU in developing a sector where it lags behind the US: alternative financing for small and medium-sized enterprises (SMEs). Post-financial crisis economic rationales prioritising growth and higher-quality lending are fuelling ongoing UK reforms to enable wider sharing of privately-gathered financial behaviour data and the controlled release of publicly-gathered information to business information providers such as credit reference agencies (CRAs) in order to foster the development and spread of innovative, increasingly-accurate methods of credit risk analysis. This recourse to Big Data techniques and Open Data sources is expected to meet the stated economic policy goals, but in so doing it threatens to hollow out further information management norms and data subject rights enshrined in privacy and data protection law just as it is gathering unprecedented momentum in courts and on statute books across the continent.

Since the vast majority of UK SMEs are small entities, the scoring of them spans both commercial and consumer credit streams, meaning that personal data is at stake on a far greater scale than with larger firms. Here we question how the movement toward accessing ever-more-granular and complete data on SMEs for credit scoring purposes can be reconciled with the putative obligations of data controllers and rights of data subjects. Would the effective, full enforcement of data protection principles (the need for data subject consent, or legitimate interests as a legal basis for processing) and data subject rights (to data portability; to object to processing; to "be forgotten"; to access one's data and the logic underpinning one's score) really cripple the credit reference industry to the detriment of the nascent economic recovery, or is there a middle path?

Having examined the policy drive toward Big and Open Data-enhanced credit scoring of SMEs, we maintain that the associated regulatory re-shuffling and privacy-related safeguards

are highly unlikely to address adequately the serious accuracy, transparency and accountability concerns of individual data subjects. Moreover, the more robust enforcement mechanisms in the forthcoming EU General Data Protection Regulation (GDPR) indicate that from 2018 non-compliance with its terms will be a non-trivial matter for organisations. With the concrete impact of those provisions yet to be seen, however, we challenge the continued reliance on data subject consent in the credit scoring context save as a tool for encouraging more transparent processing and, in this connection and taking due account of trade secrecy, emphasise the need for tighter regulation of automated decision-making and the processing of sensitive data in the context of the credit risk industry.

II. LENDING TO SMES IN THE UK

a. The SME Lending Market

i. In the UK

Of the record 5.4 million private sector businesses in existence in the UK at the start of 2015, SMEs¹ accounted for 99.9% of that total,² employed 60% of the private sector workforce, and posted a combined turnover of 47% of private sector turnover nationwide. A total of 4.1 million of the 5.4 million private sector businesses (76%) were non-employing sole traders. Taking a longer view, 90% of the 1.9 million increase in the number of businesses since 2000 has been due to non-employing businesses.³

Whereas these striking figures alone hint at the centrality of SMEs to the UK economy, access to finance for such enterprises has been significantly limited. Bank of England figures show a sustained decline in the provision of credit to private non-financial corporations ("PNFCs") since the onset of the financial crisis⁴ due to a variety of interrelated factors resulting in asymmetric information between potential finance providers and small businesses

in particular.⁵ In the case of SMEs, a lack of publicly-available information on those businesses' activities⁶ and the information monopolies exercised by incumbent banks exacerbate the problem. Past financial performance is, of course, imperative to the accurate assessment of creditworthiness, but that information is held by the bank with which the business has its current account and is not widely shared.⁷ Thus where SMEs *are* able to obtain credit, it is most likely to be from their own bank since they are inhibited from "shopping around" for credit on better terms, whether from another bank or alternative finance providers.⁸

This stasis is reflected in and perpetuated by the fact that the SME banking sector in the UK continues to be dominated by four major banking groups, who together enjoy a market share of 85 per cent. These dominant market actors have an informational edge both as regards knowledge of individual businesses' activities and the ability to compare any SME debtor to the sizable group of SMEs using their credit services. The problem is most acute for smaller SMEs which (in contrast to larger, corporate SMEs) do not file accounts, meaning that incumbent banks have exclusive access to the data gleaned through SMEs' current accounts. The richer picture of smaller SMEs' financial health which is available to those banks allows them to calculate credit risk more precisely and offer more accurately-tailored (and profitable) loans than outside lenders deprived of such data.

The most immediate outcome of inhibited SME lending is an untapped pool of potentially productive businesses starved of the credit they need – on the terms they need – in order to grow. Moreover, since a key aspect of track record is (or would be) performance in repayment of existing credit facilities, an intractable structural problem emerges: SMEs (and especially start-ups) are less able than other entities to build an advantageous track record which would qualify them as reliable debtors.

ii. Throughout the EU

The comparatively low data visibility of SMEs is also seen as a key policy challenge at EU level, where facilitating access to finance for SMEs is an important part of the Commission's efforts to "put the EU back on the path of smart and sustainable growth". In Europe, unlike the USA or Asia, scant public information about the creditworthiness of SMEs is one reason why those firms must rely heavily on bank financing, whereas banks' loans to non-financial corporates represent less than half of total assets. This asymmetric relationship between non-financial corporates and the financial sector combined with the post-2008 crash to strangle credit, particularly in those countries hit hardest by the crisis and especially for SMEs.

In 2011, the Commission unveiled a raft of measures aiming to improve access to finance for SMEs across the EU through *inter alia* regulatory reform, financial programmes and facilitation initiatives.¹⁵ In 2013, a study by its Internal Market and Services Directorate General estimated that 25% of European SMEs have no credit score, mainly due to insufficient and inappropriate data.¹⁶ It also concluded that the comparatively scarce information on SMEs in the EU compared to that available on SMEs in the US, where alternative finance options are consequently greater than in the EU, was due not only to deficient regulation but also to a stronger general resistance to openness in business cultures across EU Member States.¹⁷ Therefore, the Commission also voiced support for efforts to encourage European companies to disclose more about their financial status.¹⁸ Furthermore, in consultation, business information and scoring providers highlighted legislative and cultural differences between Member States as barriers to cross-border expansion and intra-Union integration: notably, divergences in methodology and data requirements, sufficient

levels of publicly-available data, bankruptcy laws and privacy and data protection regimes, and the lack of a European database for defaults or uniform technical standards.¹⁹ The consensus was that all of these differences reduce the comparability, and therefore utility, of credit ratings and scores, to the detriment of the credit risk industry and the SMEs monitored by it.

The Commission's response was to order a mapping of the EU and national legislation and practices affecting the availability of SME credit information, "with a view to considering possible EU approaches to the credit scoring industry and assessing the feasibility of harmonising/increasing the comparability of SME data across the EU". 20 In April 2015 the collated responses of business information and scoring firms from 26 of the 28 Member States showed significant discrepancies in depth and type of data coverage.²¹ Although good coverage in basic company data and company activity was reported across the board and data on annual accounts are available in almost all Member States, the availability of loan-level data and payments history differs greatly from country to country.²² The policy direction is toward a "minimum set of common, comparable data that is equally accessible by all interested parties" capable of "widening the investor base for SMEs, increasing competition and fostering the efficiency and integration of SME funding markets". 23 Whilst the Commission proposed existing variables from the ECB as a starting point for standardised EU-wide credit reports, it also presented the UK as a case of "best practice in credit information data" and applauded the initiatives on increasing SME data sharing, the possibility of establishing a central credit register, and the use of non-financial VAT registration data in trade credit scoring, ²⁴ suggesting that UK policy and practice may be set to make a pioneering impact on this segment of the credit industry in Europe. Before critically assessing the potential impact of these developments on privacy and data protection, it is thus to the substance of recent and ongoing domestic reform that we now turn.

b. National Developments Stimulating Competition and Innovation

Deeming the anti-competitive effects of the major UK banking groups' vice-like grip on lending to SMEs to be "bad for consumers and business", 25 the UK government's 2013 Budget undertook to "investigate options for improving access to SME credit data to make it easier for newer lenders to assess loans to smaller businesses". 26 In December 2013 an HM Treasury consultation examined options for opening up access to credit data on SME borrowers with the aim of increasing both the reliability of credit scores obtained from the CRAs and the information available to challenger banks and alternative finance providers to allow them to reach their own informed decisions about an SME's creditworthiness. 28

i. Sharing Big Data

The Treasury noted that informational asymmetry is caused by various features of the current credit data landscape.²⁹ Any finance provider with a contractual relationship with a CRA may purchase not only risk scores from the CRA but also underlying data on the business (turnover, region, sector), owner or director data (such as credit history) and default history.³⁰ The finance provider can then make its own risk assessment of the credit applicant incorporating that data. Important data – including positive payment performance data and indications of total debt exposure levels – is, however, not always shared by incumbent banks with CRAs. As such, even were a smaller challenger bank or alternative finance provider to possess the financial means to buy competitive risk scores or underlying data from the CRAs it would struggle to bridge the informational gap, since the providing CRAs' products and services are inherently hamstrung by incumbent banks' unwillingness to share crucial data with them.

Where (consumer and commercial) credit data are shared through CRAs, the process is governed not by law but by the *Information Sharing Principles of Reciprocity* drawn up by the Steering Committee on Reciprocity ("SCOR").³¹ The Committee is a cross-industry forum which operates on behalf of credit industry trade association, credit industry body and CRA members to develop and administer the Principles.³² The anchoring provision, Principle 3, states that "[d]ata 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".³³ Here, reciprocity is strictly construed: if a newer lender offers loans to SMEs but not business current accounts,³⁴ although it may well be able to share credit data on its loan book it will not be granted access to a commensurate level of detail about other products such as current accounts, which are only available through a closed user group.³⁵

The Treasury consultation therefore asked major banks, challenger banks, alternative finance providers, CRAs, business groups, trade associations and other interested parties for their views on the detailed workings of the more open proposed scheme. This covered *inter alia* which banks should be required to share data, with which CRAs data should be shared and how frequently, and which entities should have access to the data. The government's responses to the views collated were subsequently enshrined in the Small Business, Enterprise and Employment Act 2015 (hereinafter "the 2015 Act") which received Royal Assent on 26th March 2015. Regulations implementing those parts of the Act relating to SME credit information (hereinafter "SME Credit Data Regulations" or "the 2015 Regulations") entered into force on 1st January 2016.³⁶ December 2014 saw confirmation of the banks to be initially designated to transfer the relevant data to the CRAs,³⁷ whilst on the CRA side HM Treasury entrusted the British Business Bank ("BBB") with inviting applications to be designated as participants in the scheme.³⁸ In November 2015 the Treasury announced Experian, Equifax and CreditSafe as the first CRAs so designated.³⁹

The most relevant aspects for instant purposes are twofold: precisely what data are proposed to be shared and what safeguards are deemed necessary for SME data subjects? Taking the data first, the 2015 Act and forthcoming Regulations impose two duties: a duty on designated banks to provide information about their SME customers to designated CRAs, and a duty on designated CRAs to provide information about SMEs to finance providers. The duties cover key indicators of current account performance data and wider credit data on SMEs' loan and credit card facilities. The sharing of this second category of data is already better established than that of current account data, but the government deemed that since such sharing is at present inconsistent (as noted above, less "positive" data on payments made is in general shared than "negative" data on payments missed) its distribution ought to be standardised across the board.

The precise data to be shared cover loans, credit card accounts and current accounts. Across all three types of facilities this includes relevant dates and periods (start date; close/repayment/default date; repayment period) and other factors gauging indebtedness (for instance, amount outstanding; outstanding balance). Certain other data on loan and credit card facilities do tend toward "financial behaviour" (missed payments, cash advances, and defaults), but current account performance data is more revelatory in this regard: current, minimum, maximum and average balance; overdraft limit; total paid in and out; number of days in a month where the customer has exceeded its approved limit: and "bounced" cheques or direct debits.

These are the data which were thus deemed crucial to measuring SMEs' financial health. In fact, even more detailed data sharing had been under consideration: that of turnover data showing payments in and out of an SME's account, as are of course already visible to incumbent banks.⁴² Responses were mixed on this question. Whereas the major banks were against the proposal (unsurprisingly, given that it would further compromise their

informational advantage) and CRAs unconvinced on practical grounds, some challenger banks and alternative finance providers were in favour, emphasising that the more granular the data, the more use it would be for assessing credit risk.⁴³ Whilst only the business group respondents noted that the sharing of such detailed turnover data could raise privacy concerns for data subjects,⁴⁴ the Treasury did echo these misgivings in explaining its decision not to mandate it at this stage.

ii. Releasing Open Data

Elsewhere in the 2015 Act, s.8 provides that the Commissioners for Her Majesty's Revenue and Customs ("HMRC") may disclose non-financial VAT registration data for the purposes of assessing creditworthiness, compliance with financial regulations, or risk of fraud. This mechanism of controlled release of VAT registration data was inserted into the Act having featured in a separate consultation procedure led by HMRC on the sharing and publishing of selected tax data for public benefit, 45 aligned with its own 46 and the government's broader policy on Open Data. 47 The status quo can be summarised as a patchy public record for smaller businesses: HMRC noted around 800,000 businesses which were VAT-registered but not incorporated as companies 48 amongst a total of 1.9 million live registrations, providing a comprehensive picture of UK businesses above the turnover threshold for mandatory registration (a relatively low £79,000) as well as those below the threshold which have opted to register voluntarily. 49

The consultation therefore sought to appraise the potential benefits of making VAT registration data on SMEs more widely available through two alternative schemes: the general publication as Open Data of comprehensive yet limited data sets⁵⁰ and the controlled release to specific parties for limited uses of the full data sets.⁵¹ The range of potential

economic benefits flowing from the first scheme identified by HMRC was broad;⁵² moreover, the consultation reiterated the Shakespeare Review's emphasis, in keeping with the aspirational ethos of the Open Data movement, that information disclosure can generate benefits in unforeseen ways.⁵³ Similarly, although the principal intended benefit of the controlled release scheme was improved credit scoring,⁵⁴ anti-fraud checking was also envisioned from the outset and a majority of respondents to the HMRC consultation argued that data should be released to any qualified party (for example within government, to banks or other credit or business information providers) provided that the parameters of permissible uses are defined clearly and enshrined in contract.⁵⁵

This flexibility is reflected in the provisions of the 2015 Act which limit controlled release to the assessment of creditworthiness, compliance with financial regulations, and risk of fraud. The policy is, nonetheless, most advanced in relation to credit scoring: the results of a joint research project commissioned under the consultation and carried out by HMRC in conjunction with three CRAs into the impact of the use of such data on trade credit scoring were released in June 2014, and are discussed below.⁵⁶

c. Added Value to Credit Risk Analysis

Mandating both the wider sharing of SME credit data and the controlled release of VAT registration is premised on two convictions: first, the more reliable data available, the more accurate credit scoring will become, and second, the wider the distribution of such data (and its analytical fruits) the more competitive the lending market will become. In the Treasury consultation process on the sharing of SME credit data, this second factor was accorded particular weight since the business current account data which are central to the plans are already available to incumbent banks, and as such wider sharing thereof would recalibrate

access across the lending field rather than break open a hitherto-untouched information silo.⁵⁷
This last point is less true in respect of non-financial VAT registration data held on HMRC databases. Although some key elements are already deliberately placed in the public domain – for example, in business directories or on invoices – it is rather the systematic access to full datasets which is anticipated to boost significantly the coverage and accuracy of scoring.⁵⁸

The consensus of respondents to the HMRC consultation on the release of VAT registration data was that the absence of reliable information, rather than the presence of any negative indicators of business viability, is a key factor in lowering credit scores. One response stated that credit scores for unincorporated businesses could be an average of 40% lower owing to paucity of data. ⁵⁹ In order to test this type of hypothesis, HMRC launched a research project on the use of non-financial VAT registration data in trade credit scoring in conjunction with three CRAs. A representative sample of traders from the VAT register was scored by each participating CRA with and without and VAT registration data in the scoring algorithm, and trade credit limits of traders compared. ⁶⁰

Through the project, 80% of the traders featured in the VAT registration data set were either matched to existing CRA records or identified for the very first time.⁶¹ Whereas all of the incorporated businesses identified or matched were already known to the CRAs, 55% of the non-incorporated traders had no previous record.⁶² This discrepancy is reflected in the respective shares of the 4% increase in average net trade limits across the entire sample: approximately three quarters was due to creation of new credit limit reports for non-incorporated traders not previously given a limit, and around a quarter was due to an increase in existing trade limits.⁶³ The new trade credit limits thereby attributed to the former group would have accounted for a 120% increase in total credit limits of non-incorporated traders matched or newly-identified due to VAT registration data.⁶⁴ As such, the most likely

beneficiaries would be businesses which because of their newness, small size or activities, did not have an existing "credit footprint", 65 in practice chiefly sole traders or partnerships. 66

i. Credit reference agencies

In the UK there are six private CRAs, multiple resellers and other smaller market players, some specialising in commercial and others in consumer credit risk analysis.⁶⁷ CRAs collect a wide range of financial and non-financial data from a variety of sources to support credit approval.⁶⁸ This support may come in the form of either specific information or aggregate risk scores, classically to lenders, who seek to determine prospective borrowers' creditworthiness but lack data about the latter's past and/or present relationships with other lenders and/or businesses.⁶⁹ With the development of the business information industry, tailored products are now available to customers of all sizes and activities, from banks which integrate data into their own processes and scorecards used for loan and other business finance applications to small companies assessing new customers before deciding to trade.⁷⁰ Depending on the customer's needs, and as explained in more detail below, information available for purchase includes, for example, business data (such as turnover, region, sector), owner/director data (such as personal credit history), default history, payments made and missed, county court judgments in relation to unpaid debts and insolvency proceedings.⁷¹ This underlying data is incorporated into aggregate risk scores showing the business's likely propensity to make or miss repayments, which are also available for purchase. Most credit scoring systems specifically assess the probability of business failure in the short term, using regression analysis, current data and macro data such as interest rates and GDP in order accurately to gauge where an organisation sits within its trade sector and the total business population. 72 Typically, CRAs' customers use an on-line service to obtain a credit report on

an existing or potential customer which is generated in real time along with credit scores, credit limits and/or recommendations.⁷³ Services offered by CRAs can be tailored, rolled into one, and/or continuous: for example, some (mainly larger and more sophisticated) companies use a portfolio analysis and monitoring service whereby all customers can be analysed or and tracked.⁷⁴

ii. New data and wider access in context

In developing such services CRAs analyse a wide variety of identifying, financial, behavioural, collateral valuation and contextual information on both individuals and companies, from a number of public and proprietary sources, and are constantly identifying new sources of information with the aim of improving the accuracy and depth of information in their databases. The added value to CRAs of SME credit data shared via the 2015 Act is essentially that it enriches their records on those smaller entities. In turn, banks and other finance providers often rely on information from CRAs in considering borrowing requests by SMEs, but it can be difficult to match CRA data where these businesses are unincorporated or recently incorporated. This, as the HMRC/BIS joint research project attests, is the particular added value of non-financial VAT registration data: to help business information providers such as CRAs verify identity and status more accurately, and make more reliable judgments about a business and its proprietors, location, activities and age.

There is much similarity between the information that is available on individuals and businesses, especially toward the smaller end of the business spectrum where the limited information available on those business entities is often supplemented with information on the personal credit histories of key people within the business.⁷⁸ Indeed, sole traders

especially are often reliant upon financing obtained on the basis of personal credit assessment and personally-owned assets, such as personal loans or credit cards.⁷⁹

One service provided by CRAs is the often complex and costly matching of data on individuals and companies from a wide range of sources, in other words establishing that a person or firm identified from one source is the same as a person or firm identified from another source. This is a more complex process in the case of SMEs than for individuals since the former may be founded and dissolved easily, have multiple directors and have ownership and subsidiary relationships with other firms. In other words, matching is inherently difficult – and therefore useful – when it comes to young firms or start-ups, where the dearth of comprehensive information is widely accepted to lead to credit-constraint.⁸⁰

The wealth of information gathered, monitored and analysed by CRAs can be divided into identifying information, financial information, behavioural information and contextual information. Identifying information on both businesses and individuals comes from various sources including the Electoral Roll – and now, with the 2015 Act, the VAT Register. As mentioned, the creation of a comprehensive business register has also been proposed and remains a live option. In the case of companies, CRAs will also layer on directory and social media information to verify that a company exists and to build a profile for it, to ownership (group), and its directors – whether they have other directorships or have been connected with failed businesses.

Financial information covers financial accounts where filed with Companies House (businesses only) and credit account data (both businesses and individuals, and which may also be considered behavioural data). Filed accounts are used to gauge companies' size and strength: for large companies, full accounts (balance sheet, profit and loss account, cash flow statement and notes to the accounts) are available, whereas for smaller companies, which file

only an abbreviated balance sheet, it is necessary to use complex models based on industry sector, assets and employee numbers if this is known in order to measure business size.⁸⁴ Credit account data includes type of account, repayment amount and term, amount outstanding, history of payment, default balance and so on as detailed above in the analysis of the changes wrought by the 2015 Act; similar data is extracted from current accounts or loan facilities used by individuals or businesses.

Much of this information can also be classed as behavioural information alongside payment accounts data (sourced for example from trade credit, trade credit insurers, utility providers and telecommunication companies) since its weight or insight value is derived from context. For instance, a sudden switch in behaviour from timely to late payment may be cause for further investigation, although not necessarily an indicator of heightened credit risk. Payment accounts data is reportedly often the most predictive information available, especially trade payment data. One convincing reason for this is that, on the whole, borrowers are more likely to stop paying utility bills or supplier invoices before they stop making payments on credit products.

Trade credit is essentially business-to-business credit taking the form of delayed payment, with payment made when income from the projects has been realised or when final delivery of the goods has been made. Reference of the goods has been made. Trade credit is an important source of finance for businesses of all sizes, but is particularly important for start-ups and small firms - especially in the absence of conventional credit, making the UK somewhat unique in the EU. Since trade credit data (within the category of payment accounts data) is available through CRAs to all of their clients, whether in the form of credit scores or the underlying data, the Treasury saw no need to mandate sharing thereof in the 2015 Act. Trade creditors themselves often rely on CRAs' judgments in the form of credit scores and recommended limits; the anticipated increase in such limits due to the VAT registration datasets newly-available to CRAs was

detailed above. There remained, however, the question of whether (non-financial) trade creditors ought to be given access to data on (financial) loan facilities, credit, or business accounts which is currently governed by reciprocity. Notably, the Bank of England supported such access – at least to the credit scores based on credit account data – on the grounds of supporting both trade and the provision of trade credit. Accordingly, the 2015 Act has defined "alternative finance providers", beneficiaries of its data-sharing scheme alongside lenders, so as to encompass trade creditors.

Returning to behavioural information processed by CRAs, further examples available on both individuals and businesses are any county court judgments (CCJs), court orders or decrees issued (sourced from the Registry Trust) and bankruptcies and insolvencies (through the Insolvency Service). It is worth recalling here that a central source of concern in the context of inhibited lending to SMEs is precisely that this "negative" data tends to be the only publicly-available data available on sole traders or partnerships. ⁹⁴ By way of contrast, either individually or in combination the following publicly-visible events may affect a limited company's credit score: late filing of accounts at Companies House; resignation of director(s); change of ownership; change of auditors; change of registered office; sudden high volume of credit enquiries. ⁹⁵

Collateral valuation is also important to the risk assessment of prospective secured lending to SMEs: depending on the circumstances mortgages and charges may have the effect of lowering a credit score, ⁹⁶ but over-collateralisation can alleviate the necessity to use other information items to fully assess default risk. ⁹⁷ Finally, valuable contextual information in theory covers any data that can be used to interpret all other data items in forming a judgmental assessment of the SME's expected performance, often against a subset of firms that can be expected to perform similarly. ⁹⁸ Besides confirming baseline factors such as length of time in business (for SMEs, discoverable for example through VAT Registration

data) common examples of useful context include the industry and location⁹⁹ in which the firm operates, the competitive position it has, the customers it has and the creditworthiness of its customers. Social media data can be very useful in this regard: for example, websites can be searched for information such as whether the firm is winning contracts.¹⁰⁰

Especially with smaller SMEs, there is substantial crossover with consumer credit risk analysis: this is an entirely logical step for assessing (and demonstrating) creditworthiness of, for example, a start-up with no credit track record of its own and minimal assets. Such consumer scoring, which has much in common with Big Data-enhanced marketing techniques, is most sophisticated in the US, with the recent emergence of a wave of credit risk analysis start-ups for whom "all data is credit data". However, ongoing projects in the UK now appear to be following suit insofar as they eschew the constraints of traditional "track record" credit analysis in favour of more holistic and dynamic monitoring, such as a tailored appreciation of an SME's place within its "business ecosystem". 102

In particular the extent of technological crossover with marketing techniques has prompted US commentators to voice major concerns as to *inter alia* the discrepancy in impact caused by inaccuracies in marketing (for example, unsolicited advertising) and access to credit (which may greatly impact on life chances), the propensity of such technologies to conceal and entrench discriminatory treatment, and the use of "alternative credit scoring" products specifically to target vulnerable individuals for predatory loan terms. ¹⁰³ Of these three central concerns, the first two shall be addressed later from a UK perspective in light of the forthcoming General Data Protection Regulation as well as the SME credit data reforms. For now, in the context of encouraging the development of "alternative credit scoring" products it is worth recalling that the Treasury decided against mandating the sharing of granular turnover data with "designated" CRAs. This data, showing payments in and out of business accounts, is undoubtedly of great putative value to credit risk analysis yet as noted above, the

Treasury declined to order the sharing thereof ostensibly due to privacy-related as well as practical issues. It ought to be underlined that incumbent banks already have access to this data as operators of business current accounts; as such, this decision might have gone some way to appease their resistance to seeing their informational advantage diminished by the reforms. Notably, however, the possibility of mandating such sharing in future was not removed from the table. If it is to materialise, it is submitted that this must not be done before critical concerns as to the transparency and accountability of credit risk analysis using Big and Open Data are adequately addressed.

III. CRAs AND DATA PROTECTION LAW

a. Legal and Regulatory Framework

i. General provisions

In contrast to the commercial credit sector, which is largely unregulated, the Consumer Credit Act 1974 (CCA) established a licensing scheme for consumer credit businesses, consumer hire businesses and ancillary credit businesses, with the latter term encompassing CRAs, ¹⁰⁴ and set out a framework for the overall regulation of the supply of consumer credit (influenced) by those entities. The rules therein, developed through a body of secondary legislation, elaborated upon and enforced thereafter by the Office of Fair Trading, have since been amended most notably by the Consumer Credit Act 2006 and secondary legislation implementing the EC Consumer Credit Directives. The overarching goal of the 2006 Act, itself a major enactment updating the ageing statute at 71 sections and four schedules, was to encourage responsible lending. ¹⁰⁵ To that end it *inter alia* provided for the regulation of all consumer credit and consumer hire agreements subject to certain exemptions; made further provision on the supply of post-contract information, default, and unfair relationships;

enhanced the functions and powers of the OFT, deemed ineffectual, in relation to licensing; enabled debtors to challenge unfair relationships with creditors; and provided for an Ombudsman scheme to hear complaints in relation to businesses licensed under the Act. 106

Subsequently, regulation of the entire consumer credit market passed from the Office of Fair Trading (OFT), which was dissolved, to the Financial Conduct Authority (FCA, created 1st April 2013) by virtue of powers included in the Financial Services and Markets Act 2000 (FSMA) and the Financial Services Act 2012. Since April 2014, activities relating to consumer credit have been regulated by the FCA through a combination of provisions retained under the 1974 Act, new provisions in FSMA and FCA conduct rules which have the force of law and which in turn incorporate in places pre-existing regulation from the OFT. The coalition government believed that the transfer of regulation from that (not-for-profit) government department to the FCA (which is independent of government and financed by fees charged to members of the financial services industry) would result in "tougher, more proactive" and more flexible protection of consumers at a time of high levels of unsecured lending, exponential growth in the provision of credit services online, and much-publicised concerns surrounding predatory payday lending and high-cost credit. 108

As regards the credit reference industry, besides establishing a licencing system the 1974 Act originally provided that a creditor, owner or negotiator must upon the request of a debtor or hirer disclose the name and address of any CRA consulted. It also created a duty on CRAs to provide individuals with a copy of their credit file in return for a small fee and a mechanism for the correction of wrong information in that file. ¹⁰⁹ Amendments made principally by data protection legislation, the 2006 Act and through secondary consumer credit legislation implementing the EC Consumer Credit Directives have: obliged creditors to automatically inform refused credit applicants of their having used a CRA in coming to their decision not to proceed with the agreement and to provide the applicant with the particulars of the CRA(s)

consulted; introduced exceptions to such an obligation where, for example, disclosure would contravene the Data Protection Act 1998 or (be likely to) prejudice the administration of justice; provided that CRAs must, in issuing credit files to individuals having made such a request, 110 also inform those individuals of their additional right to have any wrong information corrected; and modified the 1974 "notice" system (of removal, amendment, or of no action taken) to allow for the adjudication of ICO in disputed cases and, concerning "business consumers" only, the intervention of the OFT (now FCA) to filter out any aspects of the credit file the publication of which would "adversely affect the service provided to its customers by the agency". 111

Since the transfer of regulation of the industry to the FCA in 2014, this legislative framework is fleshed out by the aforementioned conduct rules (the Consumer Credit Sourcebook or "CONC" Rules) found within the general FCA Handbook. CONC 9 was until recently the (very short) section of most relevance to CRAs from a data protection perspective: CONC 9.2 R clarified the extent of the duty on CRAs to forward details of corrected entries in credit files (removed or amended entries; other information based in whole or in part on any such entry) not to the objector but to "each person to whom at any time since the relevant date it has furnished information relevant to the financial standing of the individual concerned" essentially prospective lenders.

In late 2015, however, CONC 9 was deleted following an FCA consultation with representatives of the credit industry, thereby passing the burden of informing such persons of the altered information in a user's credit file to that user. The FCA stated that "[i]t is open to the consumer to bring the amended information to the attention of persons whose decisions might be materially affected" and that "[t]here is no requirement generally under data protection legislation to notify previous recipients of incorrect data, unless ordered by a court". Although this development certainly appears regrettable in principle from the

perspective of the data subject, its significance ought to be qualified. The burden at stake is certainly of secondary importance to the proper functioning of the data accuracy, access, correction and erasure mechanisms in the first place; so long as adequate guidance is in place from the lender as to which CRAs ought to be notified, completing the correction ought to be a relatively straightforward affair. Although no further details are available, 115 it seems reasonable to presume that the credit industry view on CONC 9.2 R was along these lines.

Nonetheless, and even with due account taken of the minor nature of such an adjustment, it is difficult to reconcile fully the burden shift with the spirit of the upcoming EU GDPR which seeks to empower data subjects across the board. Finally, it is worth noting the FCA's reference to the importance of the user's own initiative and reliance on the statutory possibility of court proceedings. As indicated below, court action is a remote prospect for the average data subject – certainly as regards credit scoring. As such, it is possible to interpret the rationale behind such a rule change as indicative of a laissez-faire approach to enforcement of compliance with the cognate data protection norms included in the 2015 reforms. We return to the FCA's newfound, as-yet-undefined role in the enforcement of select data protection provisions vis-à-vis SME data subjects below.

ii. Data protection

It can be seen from the (different) definitions of personal data in both the 1995 Data Protection Directive (DPD)¹¹⁶ and the Data Protection Act 1998 (DPA)¹¹⁷ that the provisions are only applicable to data which relate to a living individual. As such, the legislation endows only natural persons with rights. Setting aside momentarily the significant grey areas surrounding the concept of personal data, it is worth recalling that CRAs produce credit reports on both businesses and individuals, and therefore on both legal and natural persons.

As noted above, currently 76% of SMEs in the UK are sole traders. Importantly, whereas sole traders (along with partnerships) may be classed as "businesses" for the purposes of information sharing in the credit industry, 118 from a data protection perspective what is important is whether the processing of personal data as defined under European and UK legislation is carried out – regardless of the formal status of the credit applicant.

It is easy to accept that lending decisions relating to business credit applicants – especially in the case of large organisations – are less likely to involve personal data. 119 Conversely, the smaller the business entity, the more probable it is that data gathered on its economic activity will qualify as personal data. This was the reasoning underpinning the decision to treat sole traders, partnerships of three or fewer and unincorporated bodies as "consumers" for the purposes of the Consumer Credit Act 1974 and the Data Protection Act 1998. 120 This has consequences for the rights enshrined therein to take legal action in respect of breaches of the data protection principles and the specific provisions in the CCA. Under the DPA, individuals are entitled to apply to the relevant court¹²¹ for compensation for damage sustained or distress suffered as a result of any contravention by a data controller of the requirements of the 1998 Act. 122 Individuals may also apply for a court order to ensure rectification, blocking, erasure or destruction of inaccurate data. 123 When an individual exercises the gateway right of access to their personal data in s.7 of the DPA and the data controller is a credit reference agency, the latter must also inform the data subject of their rights under the DPA (the legal action just detailed) and under s.159 CCA, which provides a right of referral to the OFT (where the objector is a partnership or other unincorporated body of persons) or to ICO (in any other case) where either party remains unsatisfied. 124 These mechanisms exist in parallel with the Commissioner's other enforcement powers relating to the private sector: the issuing of a variety of notices enabling it to determine whether provisions of the DPA have been or are being contravened, request remedial measures, levy monetary penalties, and ultimately pursue criminal prosecution.

The impact of the described system on CRAs is discussed in the following section. First, however, it must be noted that guidelines for best practice in honouring the data protection principles have also come at cross-industry level. Firstly, the SCOR principles mentioned above entail contractual commitments for the regular monitoring and certification of their own compliance with the Principles of Reciprocity, and the quality, completeness and accuracy of data supplied, overlapping with key data protection principles. Furthermore, in 2000, under the aegis of the Office of Fair Trading, an updated guide to consumer credit scoring was drawn up by credit industry organisations (such as the British Bankers Association and the Consumer Credit Trade Association) together with the CRAs operational at that time and in consultation with the then-Office of the Data Protection Registrar. A new industry standard was required in order to reflect significant advances in the use of scoring in credit assessment since the release of the last guide in 1993 and to ensure compliance with recently-introduced legislation, chiefly the EC Data Protection Directive. Provisions of the Guide, which will need updating in light of the impending GDPR, will be referred to where instructive in the analysis below.

iii. Safeguards in new SME credit data measures

As noted above, ICO appeared relaxed in consultation on the SME lending reforms. At the Bill stage, the Commissioner did highlight the mooted obligation to share granular payment data as being a potential source of privacy concerns, but regrettably declined to develop that point any further. On the substance of safeguards for SMEs, the consensus of virtually all respondents whose contributions made it into the summary was that obtaining the consent of

data subjects was sufficient. Government plans to ensure SMEs' confidence in how their data are handled by CRAs under the new designation scheme largely relate to the extension of enforcement and redress mechanisms already in place for credit consumers to also cover "SME consumers": 127 the large minority of SMEs (chiefly small companies) which do not already count as individuals under the existing regime. 128 In other words, in operating the new designation scheme for CRAs wishing to access data shared by banks the Treasury will not only vet potential participants for internal data protection compliance procedures before giving the go-ahead but will also extend the rights hitherto enjoyed only by sole traders, partnerships of three or fewer and unincorporated bodies to all SMEs whose data are processed under the scheme.

Those SMEs will therefore enjoy the right to access their "personal" data under the DPA together with the notice and correction mechanism enshrined in the CCA, policed by the FCA. 129 Additionally, the Regulations establish a right similar to that under the DPA for all such SMEs to apply to a court for an order to rectify, block, erase or destroy inaccurate data and "any other information which contains an expression of opinion which appears to the court to be based on the inaccurate information". 130

This effectively creates a limited set of justiciable data protection rights for legal persons whereas under UK law data subject rights are enjoyed only by natural persons. Both theoretically and on the statute books, a strict interpretation of the concept of personal data would exclude such a possibility, since the entire legal regime depends on the processing of personal data defined by reference to "natural person[s]" and "living individual[s]" in the 1995 Directive and the 1998 Act respectively. The exact provenance of this novel development, besides a general desire to reassure SMEs that their data will be handled responsibly and to take a common-sense uniform approach to all SMEs affected by the scheme, is unclear. The changes are conspicuously absent from the sections devoted to SME

safeguards in both the Treasury consultation paper and summary of responses, which – alongside standards of data quality and data security – placed the accent almost exclusively on ensuring that the consent of SMEs is obtained before sharing may take place. Nor do the Explanatory Note or Memorandum later added to the draft Regulations – which have themselves remained largely unchanged since December 2014 – explain this amendment.

The changes may well reflect and complement a general will to encourage better treatment of SMEs by providers of financial services – and not merely ancillary actors such as CRAs. In a recent discussion paper, the FCA reveals that SMEs can experience bad outcomes at the hands of lenders in a wide range of situations due to a combination of three factors: market forces, market practices, and insufficient protections. The high levels of concentration in the market for lending to SMEs were addressed earlier. The second and third factors are interlinked: for example, individuals who have suffered loss as a result of authorised firms not complying with FCA rules have a general statutory right of action under s.138D FSMA, whilst generally SMEs do not. The next safety net would be a claim under the general law, but firms may seek to limit their potential liability through contractual terms, and those firms unable to negotiate beneficial terms may therefore be less likely to obtain redress through the courts. The second are received as a second and third factors are interlinked:

To help remedy this comparative disadvantage, the 2015 Regulations also extend the jurisdiction of the Financial Ombudsman Scheme to all SMEs whose data are processed under the "designation" scheme. 134 FCA and FOS rules are due to be changed accordingly to bring designated CRAs and finance platforms within the scope of the ombudsman service's compulsory jurisdiction where they are not already subject to it. 135 The shoring up in the 2015 Regulations of data-related safeguards for "SME consumers" vis-à-vis designated CRAs therefore fits neatly within a general drive to level the playing field between SMEs and financial service providers.

Rights of access, redress and compensation aside, the Regulations now impose a duty on the FCA to monitor the proper functioning of the SME credit data sharing initiative. ¹³⁷ It remains to be seen precisely how such monitoring will pan out: will the emphasis be placed on compliance with the obligations on banks and CRAs to (respectively) share and ensure equal access to SME credit data? Or will the more powerful FCA also proactively monitor the compliance of CRAs "designated" to receive SME credit data with data protection law, thereby overlapping with the remit of ICO?

Consulting market actors in June 2015 on changes to the Handbook in order to accommodate its new role under the Regulations, the FCA made no mention of data protection but focused on policing the planned sharing, further measures relating to alternative finance platforms, and the extension of the Financial Ombudsman Service to qualifying SMEs. The FCA located the rationale for reform squarely within its objectives of ensuring that the relevant markets function well and promoting effective competition. ¹³⁸ This document was, however, prepared prior to the release of the draft Regulations placing a general duty on the Authority to monitor banks' and CRAs' compliance with *any* requirements¹³⁹ attached to participation in the scheme. We return to this point below.

iv. Uncertain impact of regulation

At the time of writing, there has been only one instance of an individual's data protection-related grievance against a CRA reaching trial, in *Smeaton v. Equifax*. ¹⁴⁰ *Smeaton*, a convoluted case concerning the failure of the CRA to record the rescission of a bankruptcy order on the plaintiff's credit file, is also notable in that parts of the aforementioned *Guide to Credit Scoring 2000* were cited by the Court of Appeal in support of its conclusion that *Equifax* had taken reasonable steps in order to ensure the accuracy of the data it held on Mr

Smeaton.¹⁴¹ Industry best practice, which Equifax had jointly created, thereby served as an interpretative aid in judicial proceedings against that enterprise instead of guidance of independent origin. Although the Court relied on the *Guide* in relation to a relatively minor, procedural point, the fact that it did so must nonetheless reflect poorly on the effectiveness of regulation.

As at February 2016, there had been no enforcement notices issued, or any other action taken, by ICO pursuant to complaints made against the major CRAs in the UK. 142 Responding in early 2014 to the Treasury's consultation on improving access to SME credit data, ICO declared itself generally satisfied that "the sharing of information that currently happens within the market is done so in compliance with the DPA" and added that it did not see the DPA as posing any "barrier to widening access to SME information as long as a robust governance and compliance framework is in place to protect any personal data". 143 ICO monitors the strength of such frameworks through initiatives including review visits to organisations which process personal data, alongside the complaint and decision mechanism. Reporting the latest round of such visits in September 2014, examining CRAs' compliance with the fourth data protection principle (data should be accurate and up-to-date), 144 the regulator also appeared satisfied. 145

Similarly, no fines have been issued by the FCA against CRAs for violating data protection norms since it took over regulation of the consumer credit market in 2014. This is unsurprising given not only the short timeframe but also the limited nature of the data protection-oriented rules enshrined in the CCA 1974 as amended and CONC, detailed above, which the Authority is charged with enforcing. Some instances of bad business conduct or maladministration impacting on individual consumers have been dealt with through the extrajudicial Financial Ombudsman Service (FOS), but successful claims are rare and compensation negligible. 146

One reason for the lack of enforcement action just detailed may be found in the complex terrain of the division or sharing of the regulatory burden between CRAs and other credit industry actors under the current UK data protection regime. Since CRAs often function rather like a conduit in the credit data exchange process, they may be considered the data controller or data processor for the purposes of data protection law. For example, where data captured from an individual's economic activity (such as credit account information) is shared through a CRA by one of its "clients" (for instance a bank), the CRA is not the sole data processor since it is unable to amend that data without the client's permission. In contrast, where data forwarded by the "client" is then linked to an individual by the CRA, the CRA is the sole data controller in respect of the link – which it may unilaterally remove – if not of the source, which it may not unilaterally amend.

The very fact that the regulatory burden is diffused between the numerous actors in the data processing environment can lead to a shifting of responsibilities to the detriment of the individual data subject, as the experience of ICO in monitoring data accuracy has shown. The creation of a separate monitoring role for the FCA under the 2015 reforms may provide an opportunity to shore up these shortcomings: indeed, any hybrid arrangement combining authorisation to participate in the SME finance scheme with monitoring of data protection standards would bring the SME finance scheme closer to the regulatory framework in another EEA jurisdiction, Norway, where credit scoring is entirely governed by data protection law. The *Datatilsynet* (the Norwegian DPA) is the only authority that can grant specific licences to carry out credit scoring which clarify and limit *inter alia* the sources of data to be used, the different processing operations for different categories, the rules on the storage of information and data in specific registers. The content of the storage of information and data in specific registers.

Although it may be difficult to imagine a similar venture into the technical heart of credit scoring on the part of UK regulators, the Treasury reserves the right to revoke the designation

of a CRA taking account *inter alia* of the robustness of its CCA and DPA compliance procedures *or* its "compliance, and likely future compliance" with those requirements.¹⁵² This would suggest that data protection compliance is not intended as a mere one-off vetting exercise prior to joining the SME finance scheme but that some manner of interaction between the Treasury and the FCA is envisaged, although details on the form this might take remain elusive.¹⁵³

At the least, a sharper enforcement focus ought to improve CRAs' compliance with the limited set of data protection norms incorporated in the "designation" scheme. From the overlapping consumer protection and data protection perspectives these adjustments can only be welcomed, and may invite reconsideration of the view that data protection "does not widely feature in the British regulatory context." That was the conclusion of a recent comparative study on the regulation of credit scoring in five European jurisdictions, which also observed that "[i]n [both] Norway and the UK, the system is more open to citizens' involvement; ... [h]owever in Norway this involvement starts, from first principles, with data protection, whereas in the UK the emphasis is on making credit widely available whilst simultaneously educating the public about its dangers". 156

It is of course an impossible task to gauge accurately the levels of compliance with data protection rules within the appropriate CRA context. With this in mind, the discussion has thus far focused on the potential impact of the reforms underway on those levels such as they may be. Ultimately, however, this paper contends that the rules enshrined in the current regime, including those intended to ensure data accuracy, are simply inadequate to provide meaningful control of Big Data credit scoring developments, even given complete data accuracy and irrespective of which actor(s) is (are) responsible for effecting those rules. The comparison with Norway provides an opportunity to broaden the analysis by first underlining that any notion that scant enforcement action indicates overall compliance with data

protection norms stands in contrast to the sceptical position taken by the few independent experts on the relationship between credit reference agencies and data protection law. Ferretti, speaking with experience of working in-house at a CRA, offers the following view:

Whether CRA activities truly comply with the law is problematic. There are critical concerns about the necessity, adequacy, and relevance of the type of data involved and the foundations, or assumptions, upon which consumer credit reporting is based to determine the predictability of individual human behaviours and/or the real financial capability of borrowers.

In particular, many doubts arise as far as the legal compliance of information to be given to data subjects is concerned. The general objectives of transparency and informational self-determination set by the directive seem seriously compromised by the amount and intelligibility of information that should be provided to individuals, the type and number of personal data processed by CRA[s], the indefinite number of actors involved in a spill-over data dissemination, and the secondary uses of the same data.¹⁵⁷

At this juncture it is worth recalling the twin objectives of data protection law: to protect the fundamental rights and freedoms of natural persons, and in particular their right to privacy, with respect to the processing of personal data, without restricting or prohibiting the free flow of personal data. UK data protection regulation, in the CRA context, responds to both objectives by encouraging data quality and data security which ultimately contribute to the efficiency of the data flow. The recent ICO review visit to CRAs is a good example of this: it dealt only with the accuracy of data held by CRAs. Indeed, even the rights of access, correction and notification afforded to data subjects also serve this goal. As such, the "education" referred to in the IRISS study cited above seems limited to raising awareness of the importance of building and maintaining a credit score; for that reason, it is imperative to monitor and act upon any manifestly incorrect information held on one's credit file. The message to the data subject is clear: CRAs are processing data ascribed to your person in

order to assess your creditworthiness and inform important decisions about your financial standing. It is up to you to ensure that that data is accurate – but you cannot know how those data are being used.

Thus just as the legal framework largely declines to regulate the actual use made of personal data by CRAs, limiting itself to ensuring data quality, data security and so on, nowhere is it apparent that individuals are entitled to any measure of meaningful control – from the German, *informational self-determination* – over how their data are processed, and ultimately how important decisions producing a significant impact on his or her life chances are taken. The remainder of this contribution will therefore begin to explore potential avenues for increasing the involvement of data subjects, be that involvement passive or active, in such decision-making in light of the forthcoming EU-wide data protection reform.

b. EU Data Protection Reform on the Horizon

Finally agreed in December 2015 over three years after its first incarnation, the General Data Protection Regulation (GDPR) will be the first ever directly-applicable EU-wide law on data protection. Among its most significant substantive contributions and innovations relative to the 1995 Directive are *inter alia* a new definition of "personal data", expanded territorial scope, either new or strengthened individual data subject rights, explicit regulation of profiling, an enshrining of "privacy by design", greater emphasis on organisations' demonstrable accountability with the provisions of the Regulation, and modified rules on international data transfers and so-called "Binding Corporate Rules" (BCRs). The enforcement landscape is also expected to be much changed from that under the indirectly-applicable Directive, with far larger fines attached to breaches by DPAs allied to a new, formalised "consistency mechanism" involving the new European Data Protection Board

(EDPB). Recommendations of the Board, which will replace the influential if merely advisory Article 29 Working Party (A29WP), are to be binding and subject to appeal proceedings before the Court of Justice of the European Union (CJEU). From a UK perspective this is particularly worth underlining, since discrepancies between the UK implementation of the 1995 Directive, including on such elementary building blocks as the definition of "personal data", will become actionable and susceptible to the Board's interpretation of the text, detailed as it is at nearly 100 articles and over 100 recitals.¹⁵⁹

With this in mind and the Regulation due to enter into force in 2018, the credit reference industry is paying close attention. In October 2015, the Europe-wide Association of Consumer Credit Information Suppliers (ACCIS) reported the perspective of CRAs as centred on four areas of concern: legitimate interest as a ground for data processing; the rights to erasure and to be forgotten along with the right to object to processing; provisions on the processing of special categories of data; and innovative measures on profiling. ¹⁶⁰ The two latter points, featuring new configurations of legal grounds for processing with new or bolstered data subject rights, are dealt with below following a discussion of data subject consent in the credit scoring context – the only safeguard deemed necessary under the SME credit data scheme which we have yet to address. The fascinating questions of whether performing credit risk analysis constitutes a "legitimate interest" either *per se*¹⁶¹ or *a fortiori* in times of financial crisis, ¹⁶² and connectedly whether emerging Big Data-informed techniques of calculating credit risk are definitively reliable tools for boosting such accuracy. ¹⁶³ meanwhile, merit a richer debate than is possible here.

i. Data subject consent

The giving of consent by any person to any action which will produce legal effects upon that person is a direct expression of autonomy. Extended to the information environment, obtaining data subjects' consent prior to their data being processed is intuitively central to ensuring informational self-determination, and has been a cornerstone of data protection law since its inception in the early 1970s. It continues to hold a central place in policy-making: as noted above, the first port of call relating to data subject safeguards of the Treasury consultation on sharing SME credit data was the need to obtain consent before processing. Yet the advent of Big Data has undeniably imperilled its status, and arguably rendered it next-to-obsolete in many contexts – including credit risk assessment.

Consent is currently granted in the act of agreeing to lenders' standard terms and conditions at the point of applying for a loan. He defect the draft GDPR, the granting of data subject consent to processing of their personal data "for one or more specific purposes" exists alongside a range of other grounds which are each independently capable of rendering such processing in principle lawful, including where such processing is necessary for the performance of a contract to which the data subject is party (for example loan facilities) or for the purposes of the legitimate interests pursued by the data controller or a third party. Consent may be any freely given, specific, informed and unambiguous indication, either by a statement or by a clear affirmative action, and where granted in the context of a declaration concerning other matters (for example, the terms of a loan) must be presented in a manner which is clearly distinguishable from those other matters. The data subject may withdraw consent at any time; this must be as easy as granting consent.

How these welcome aspirations are to be reconciled in an effective manner with the reality of CRA activity is far from clear. First, there are internal tensions in the legislation: on the one hand, consent ought to be truly informed; on the other, "[c]onsent should cover all processing activities carried out for the same purpose or purposes" and "[w]hen the processing has

multiple purposes, consent should be granted for all of the processing purposes". Taking such an approach to its theoretical limits, Ferretti has pointed out that on a technical reading consent would thereby have to be given and renewed at a plethora of stages, not only at the time of making a credit application but also to the processing of *each* piece of data generated through a search on CRA databases, the fact of having secured a credit line, the fact of having been refused credit, and so on. ¹⁷¹

Secondly, the Regulation draws a direct link between the apparent ideal of such step-by-step authorisation in fleshing out its provisions qualifying consent as "freely given": consent is indeed presumed not to be freely given if it does not allow separate consent to be given to different data processing operations despite it is appropriate [sic] in the individual case". Further wording intended to protect the data subject states that consent should not be regarded as freely given if the data subject "is unable to refuse or withdraw consent without detriment" or "where there is a clear imbalance between the data subject and the controller". Whilst it is not difficult to point to the relative power of "SME consumer" to finance providers, especially in the most egregious cases of usurious payday lenders, it is equally possible to contend that in such contexts the impact of vitiated data subject consent pales into practical insignificance when compared with the arsenal of regulatory tools (FCA fines) already on the statute book.

Ferretti observes that an effective right to withhold consent to the processing of personal data for the purposes of calculating creditworthiness would undermine the entire *raison d'être* of the credit risk industry by removing those applicants or debtors from the overall pool of (potential) borrowers, causing incomplete market coverage which would commensurately diminish the accuracy of calculations of default risk.¹⁷⁴ Representatives of the credit risk analysis industry have also warned of the possible effects of the selective, strategic withdrawal of consent under the terms of the forthcoming GDPR. If an individual is able to

exercise her right to erasure of her personal data on the ground that the processing in question is not done on the basis of legitimate interests, ACCIS asserts, this will lead to an incomplete credit file (assuming that one would only wish to erase negative payment data, leaving the positive in the file) and the data subject would "join a potential group of financially excluded consumers who would have amended files.... [This] may make attaining credit extremely difficult in the future for [the data subject], and lenders would lack certainty on what has or hasn't been deleted."¹⁷⁵

In this connection it might be noted that in Norway it is possible to opt out of the entire credit system, thereby forgoing access to any finance at all. This unquestionably renders the power to give or withhold consent impactful, but what effect might it have on the completeness of credit data coverage? Does an opt-out mean that no score is transmitted to (non-existent) lenders, that no score is created at all, or that those who opt out are exempted from all credit risk analysis across the board? This debate raises questions of relative value of assets which are beyond the scope of this paper, and of a practical importance inversely related to the real place of consumer – or SME – credit in any given economy.

Put simply, where consumers have no choice other than to consent to the processing of their personal data when applying for credit, the significance of a legal rule designed to ensure such consent lies principally in its ability to inform those consumers of what processing is actually being carried out – and vice versa: knowledge of what processing is being performed is the only way to preserve the integrity of consent. In other words, where credit is a rite of passage, as in the UK, the real value of a legal rule of consent may lie not in providing direct individual agency but in its indirect facilitation as a tool of transparency. Taken as such, more creative and didactic methods of obtaining consent might, ¹⁷⁷ lay the groundwork for greater understanding of and participation in the workings of Big Data social sorting techniques such as credit risk analysis. Accordingly, the following section offers initial impressions of the

potential impact of the most salient provisions in the GDPR aimed specifically at this type of phenomena.

ii. Regulation of automated decision-making

Article 15 of the 1995 Directive gives individuals the right not to be subjected to fullyautomated decisions that that have legal or (otherwise) "significant" effects on them, traces its origins to a pioneering 1978 French law inspired by the conviction that information technology "must serve mankind" and respect "human identity". 178 It explicitly mentions creditworthiness as a relevant personal aspect liable to be subject to such processing, alongside performance at work, reliability, and "conduct", 179 whilst Recital 41 to the Directive promises data subjects "the right to know the logic involved in the automatic processing of data concerning him". Although Article 15 was, and indeed remains, an innovative measure 180 prima facie it is hampered notably by cumulative conditions in the Directive wording and, especially in the case of the UK, implementation in national law of exceptions to its application sufficiently broad as to effectively neuter its impact. 181 Taking the cumulative conditions in Article 15 first, for the right to apply a decision must be made, the decision must have legal or otherwise significant effects on the relevant person, the decision must be based solely on automated data processing, and the data must be intended to evaluate one or more of the aforementioned aspects. If the processes of credit scoring easily clear that last hurdle, the situation as regards the first three conditions is bereft of clarity. 182 Furthermore, the Data Protection Act 1998 provides that the right has no effect in relation to broadly-formulated "exempt decisions". 183 Most significantly for instant purposes, such decisions include those taken in the context of agreeing a contract with the data subject (for example, to provide finance) so long as their effect is to grant a request of the data subject (authorising the loan) or, where the request is not granted, so long as steps have been taken to safeguard the legitimate interests of the data subject, "for example, by allowing him to make representations". 184

Ostensibly following OFT intervention, the industry best practice Guide to Credit Scoring 2000 was drawn up in response. The non-binding Guide clarifies procedural points regarding unsuccessful applicants' right to appeal and the stages at which credit grantors ought to provide a clear explanation of the type of scoring used and the principal reason(s) for the adverse outcome. Examples of information to be furnished to the applicant include: a decline based on score, a decline based on adverse CRA performance data, a decline based on other specific policies such as over-commitment, home ownership, age, employment status, and existing account performance. 185 Although credit grantors should, upon request, provide details of the logic involved in the automated decision taking, the Guide clearly states that this is not expected to include "details of actual attributes or weightings, as it is recognised that this could jeopardise the integrity and/or security of the scorecards, as well as increasing the risk of fraud". 186 As hinted at by the reference to "scorecards", the *Guide* has long been surpassed by developments in automated credit risk analysis facilitated by the SME credit data reforms. Although the Treasury Regulations afford the right of access to all SMEs affected by the credit data scheme, the right to reasons or logic behind credit decisions does not appear to have been considered for extension beyond those which already enjoy such a right as "consumers" under the existing framework: sole traders and small partnerships.

The forthcoming GDPR, however, features a first-ever, broad definition of "profiling" and is set to lay the groundwork to confront this matter head-on. Its prohibition of solely automated decision-making is worded similarly to Article 15 of the 1995 Directive, featuring familiar exceptions for the performance a contract, where explicit consent is obtained, or where a specific law provides for it and lays down suitable measures to safeguard the data

subject's rights and freedoms and legitimate interests. ¹⁸⁸ Notably, the oblique reference in the Directive to "arrangements allowing [the data subject] to put his point of view" is replaced, in the first two contexts (contract and consent), by "at least the right to obtain human intervention on the part of the controller, to express his or her point of view and to contest the decision". ¹⁸⁹ "Meaningful information about the logic involved" in automated decision-making is also demanded by the Regulation at various junctures with complementary transparency-enhancing data subject rights, such as the right to access specified information on processing of personal data whether it has been obtained from the data subject or from a third party. ¹⁹⁰

Similarly to the Guide for Credit Scoring 2000 in the UK, existing approaches elsewhere have been outstripped by the sophistication of credit risk analysis: in the US, for example, "four dominant factors" must be disclosed when hundreds or even thousands of data points may be incorporated in models. To cite just one initiative in this connection, recent model legislation was drafted purporting to offer a compromise between the status quo and the disclosure of formulae and programming source code, "requiring all developers and users of credit scores and assessment tools to disclose the types of data that they collect, the sources of this data, and those particular data points that their models treat as significant." Closer to home, in early 2014 the German Federal Court of Justice passed judgment on the petition of an unsuccessful applicant for car insurance under that country's right to access provisions, reconfigured in 2009, in the Schufa case. 192 Further to the standard details provided by the CRA, the petitioner sought "specific comparison groups it used to determine her relevant score values and how the individual features used [...] were weighed during this process". ¹⁹³ The Court Access granted access to neither of these aspects of the credit scoring formula, deeming it liable to tip the balance envisaged by the legislation between trade secrecy and the transparency of scoring unduly toward the latter. The petitioner thus had to content herself with access to all of her personal data stored by the defendant, information on all third parties granted access to that data over the preceding twelve months, current calculated probability values as well as data used to calculate probability values.¹⁹⁴

Such compromise solutions may well provide a useful starting point for increasing the transparency of scoring in other jurisdictions such as the UK. However, the concrete application of any lessons learned from the German litigation will depend on constructive partnerships with an industry which is understandably resistant to change. Commenting on the draft Regulation, ACCIS remarked: "it is important reasons are meaningful and useful to consumers; but at the same time, there are also real dangers to lenders and their customers if credit scoring systems are opened up to manipulation and fraud through excessive disclosure." The same credit risk industry representatives maintain that credit scoring is not profiling, seeking thus an exemption to any of the said provisions, and stress that manual, human intervention would "introduce bias into the system". 196

This last point is, however, not only symptomatic of an unflinching, uncritical acceptance of the objectivity of Big Data-powered analysis but may, by the same token, provide the single biggest reason to open up the Black Box, ¹⁹⁷ at least in the context of credit scoring. Ferretti may note that "[m]easures or debates over the impact of credit scoring on communities of colour or other protected groups, including minorities, are almost absent in the EU", ¹⁹⁸ and there may be no evidence that confirmed difficulties in accessing finance for "diverse enterprises" are to any degree due to credit scoring models. ¹⁹⁹ All the same, a critical consensus is emerging in the US literature, from the vanguard of the technologies at hand: "Big Data claims to be neutral. It isn't". ²⁰⁰

In his analysis of discrimination against protected groups across the "scored society", Zarsky distinguishes between explicit discrimination, implicit discrimination (through, for example,

masking, subconscious discriminatory motivations, and relying upon tainted datasets or tools) and a third outcome whereby even where all variables are removed, minorities still denied.²⁰¹ This is disparate impact, where despite all techniques devised to counter discrimination being respected "the scoring process that emerged – as a whole – proved to be a proxy for race".²⁰² Whether such outcomes turn out to be "smoke indicating the fire of intentional discrimination"²⁰³ or indicative of any combination of internal flaws in the model, where detected their presence behoves legislators or regulators actively facilitating the relevant scoring processes to themselves innovate in order to preserve adequate levels of public-facing transparency.

Credit scoring does not paint on a blank canvas, but one made up of – and indeed by – preexisting economic interactions. Increasingly sophisticated, automated techniques are applied in order to predict with a maximum degree of accuracy the risk of individuals or entities defaulting on credit facilities, but using datasets on historic defaults which may have in turn materialised on an (already) uneven playing field,²⁰⁴ and whose analytic fruits are subsequently folded back into the model.

Thus, according to Pasquale, "[c]ontinuing unease about black box scoring reflects long-standing anxiety about misapplications of natural science methods to the social realm. A civil engineer might use data from a thousand bridges to estimate which one might collapse; now financial engineers scrutinise millions of transactions to predict consumer defaults. But unlike the engineer, whose studies do nothing to the bridges she examines, a credit scoring system increases the chance of a consumer defaulting once it labels him a risk and prices a loan accordingly."²⁰⁵

To venture any further in this direction would require a discussion of the associative (rather than causal) and probabilistic nature of knowledge represented by profiling and an analysis of the compatibility of legal and statistical concepts of discrimination and practices which far exceed the scope and aims of this contribution.²⁰⁶ From a data protection perspective, however, it remains to be noted that in addition to the provisions discussed above the GDPR will introduce a general prohibition on the processing of "special categories of personal data", expanded from and replacing the (non-exhaustive) concept of "sensitive data" under the current regime.²⁰⁷

Should any credit scoring practice, once exposed to relevant testing, be shown to operate as a proxy for any "special" characteristic such as racial or ethnic origin, would this "reveal" such a characteristic, thereby triggering the provision? As with so many aspects of the Regulation, the question will likely turn on the specific interpretation of its terms in the specific context at hand. Returning finally to that context, therefore, it ought to be cautioned that even such a discovery may not ultimately provide a definitive answer as to whether Big and Open Data-equipped credit risk analysis is any more or less discriminatory than traditional techniques of manual intervention and judgment of character. However, notwithstanding this limitation, individual citizens are entitled to see all available regulatory tools harnessed in order to salvage some rapidly-disappearing intelligibility in pervasive social sorting practices such as credit scoring. Moreover, this claim would appear all the stronger where, as with the SME credit data reforms, publicly-funded databases such as that holding VAT Registration Data are being re-purposed to the most immediately tangible benefit of private actors such as CRAs.

VI. CONCLUSIONS

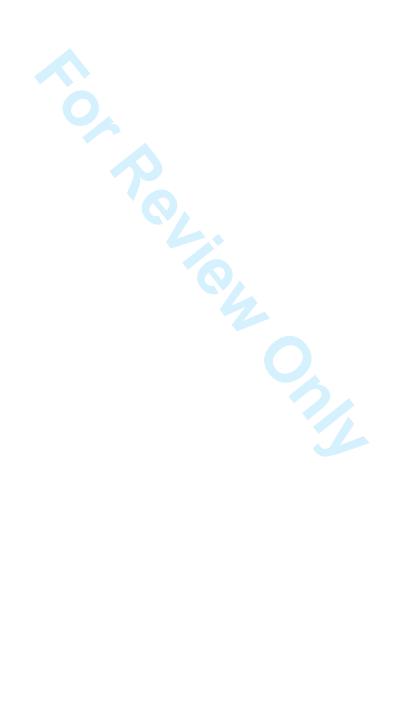
The ongoing reforms in the UK aimed at fostering more accurate credit scoring of SMEs represent a missed opportunity to ensure levels of protection of those SMEs' personal data

which are commensurate with the privacy concerns exacerbated through the intensification of credit risk analysis heralded by such initiatives. This article sought to clarify the impact of the reforms from the perspective of the credit risk industry before contending that the associated regulatory re-shuffling is unlikely to significantly improve upon CRAs' currently dubious levels of compliance with those principles of data protection originally intended to empower the data subject vis-à-vis her scorers in this fast-moving area of the information society whose economic importance, and thus centrality to life chances, ceaselessly grows.

Credit is not a right, but it has become a rite of passage in the advanced economies of our time. If the lack of attention paid to the privacy impact of the policies in question may have been expected of the Treasury and HMRC given their respective overarching remits, the same cannot be said for data and consumer protection regulators and advocates at the domestic and EU levels. In this connection it is worth underlining that during their legislative passage the Information Commissioner's Office had objected on privacy grounds to only one aspect of the SME credit data reforms: the wider sharing of granular transactional data showing payments in and out of SMEs' business current accounts. However, at the time of writing, it now seems likely that some level of transactional data will after all be covered by the SME credit scheme, meaning that ICO's objections go unarticulated.

This is regrettable since as credit risk analysis is developed using Big and Open Data techniques or sources either spread, released or otherwise facilitated and encouraged by means of legislation, the data subject's traditional putative footholds in data protection, such as the qualified rights to consent to processing, to access one's personal data and to know the logic of automated processing are bound to be increasingly outstripped unless they undergo similar re-invention.

To this end, the article closed by preparing a litmus test in the shape of the most salient substantive provisions of the forthcoming EU General Data Protection Regulation in the (SME) credit scoring context, cautioning against the continued reliance on consent whilst welcoming the apparent shift in emphasis from protection to inclusion and empowerment through greater transparency, the possibility to contest a decision and the right to meaningful information about the logic involved in processing. For these aspirations of the next generation of data protection law to have practical effect, stronger, more streamlined enforcement of the new regime must be allied to the building of meaningful dialogue between data privacy lawyers and regulators, those behind the code, and those who use it.



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References:

¹ In the UK, an SME is usually defined as an enterprise with a turnover of up to £25 million a year, fewer than 250 employees, or a comparable combination of those two factors. See House of Commons Treasury Committee, *Conduct and competition in SME lending*, Eleventh Report of Session 2014-15, 10th March 2015 at 3. The current EU definition is found in Article 2 of Commission Recommendation 2003/261/EC of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises: fewer than 250 employees; annual turnover not exceeding €50 million, and/or an annual balance sheet total not exceeding €43 million. Within the SME category, the respective figures for small and microenterprises are 50 employees/€10 million and 10 employees/€2 million.

² Department for Business Innovation & Skills and Office for National Statistics, *Business Population Estimates* for the UK and Regions 2015, 14th October 2015 at 1.

³ That figure represented a 56% increase in the number of SMEs since 2000. *Ibid.*, at 1-2 and 7.

⁴ Bank of England Discussion Paper, Should the availability of UK credit data be improved?, May 2014, at 5.

⁵ The World Bank, *General Principles for Credit Reporting*, Financial Infrastructure Series: Credit Reporting Policy and Research, September 2011, at 7-8.

⁶ Notably, smaller firms are able to submit abridged financial accounts to Companies House, containing less detailed financial information. See Bank of England (2014), *supra* n.4 at 19.

⁷ Ibid.

⁸ The Office of Fair Trading, the Competition Commission and a review by Tim Breedon entitled *Boosting Finance Options for Business* have all cited a lack of information about the creditworthiness of SMEs as a potential barrier to competition in the market for the provision of banking services (and lending in particular) to SMEs.

⁹ England and Wales. See HOC TC, Conduct and competition in SME lending, supra n.1 at 82.

¹⁰ See European Commission, *European Financial Stability and Integration Report 2012*, April 2013, Ch.5: 'SME's credit assessment industry, contribution to stability and growth', at 127.

¹¹ See *Llewellyn Consulting*, Financing European Growth: The challenge for markets, policy-makers, and investors (2012) at 16.

¹² Defined as corporations whose activity is the production of market goods or non-financial services. See OECD Glossary of Statistical Terms (OECD Publishing, 2008) at 361. Examples include retailers, manufacturers, utilities and business service providers, construction companies and airlines.

¹³ Approximately one third. See EU COM (2013), *supra* n.10 at 125 citing the "Liikanen Report" by the Highlevel Expert Group on reforming the structure of the EU banking sector, Brussels, 2 October 2012.

¹⁴ See EU COM (2013), *supra* n.10 at 139.

¹⁵ European Commission Communication, *An action plan to improve access to finance for SMEs*, COM(2011) 870 final, 7.12.2011. For details of the implementation of many of the measures, see the Commission Staff Working Document accompanying its Communication on *Long-Term Financing of the European Economy*, SWD(2014), 27.3.2014.

¹⁶ COM (2013), supra n.10 at 141.

¹⁷ Ibid.

¹⁸ *Ibid* at 140-142.

¹⁹ COM(2013), at 140-141.

²⁰ See European Commission, Staff Working Document accompanying Communication on *Long-Term Financing of the European Economy*, SWD(2014) 105 final, 27.3.201, at 11 *et seq*.

²¹ European Commission, Staff Working Document, *European Financial Stability and Integration Review*, SWD(2015) 98 final, 27.4.2015, Ch. 7: 'Special focus on SME credit information in the EU'.

²² The UK, along with Italy and Lithuania, was considered to have very good data coverage. *Ibid* at 205.

²³ *Ibid* at 210.

²⁴ *Ibid* at 207-208.

²⁵ HM Treasury, Consultation: Competition in banking: improving access to SME credit data, 20th December 2013.

²⁶ HM Treasury, *Budget 2013*, 20th March 2013, point 2.259, 'SME credit database'.

²⁷ Supra n.25.

²⁸ *Ibid* at 3.1.

²⁹ *Ibid* at 3.2.

³⁰ Ibid.

³¹ Steering Committee on Reciprocity (SCOR), *Information Sharing Principles of Reciprocity*, Version 36 (final), September 2014. See http://www.scoronline.co.uk/principles

³² *Ibid*, at 1.

³³ *Ibid*, at 3.

³⁴ A prevalent situation given the levels of concentration in the lending market detailed above.

³⁵ The newer lender will be able to see proxy indicators or "warning flags" showing whether declared income matches that available from current account turnover data, whether that data suggests the consumer is overindebted and whether the customer may struggle to repay credit. However, it will not be able to see the underlying data itself. See HMT Consultation, *supra* n.25 at 3.2.

³⁶ The Small and Medium Sized Business (Credit Information) Regulations 2015.

³⁷ HM Treasury, *Autumn Statement 2014*, December 2014, at point 2.180.

³⁸ The final decision on designation remains with HM Treasury. See British Business Bank, *Credit Reference Agencies: Call for Information*, 24th March 2015. Besides verifying from their activities that applicants are bona fide CRAs, the BBB is charged with – fittingly enough – scoring applicants' suitability for enhanced data access

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on the basis of (often open-ended) criteria such as data handling capacity, legal, fraud and compliance, management team and track record, risk management and conflicts of interest.

- ³⁹ HM Treasury, Spending Review and Autumn Statement, November 2015, Cm 9162 at 1.221.
- ⁴⁰ 2015 Act, s.4. The Act also empowers the Treasury to impose by regulations a duty on designated banks to provide specified information about SMEs to designated finance platforms, although this option has not been included in the Regulations: see s.5.
- ⁴¹ HM Treasury, *Improving access to SME credit data: summary of responses*, June 2014 ("HMT Summary of Responses"), at 2.21 *et seq.*
- ⁴² *Ibid* at 2.10 *et seg*.
- ⁴³ *Ibid* at 2.18.
- ⁴⁴ *Ibid* at 2.15.
- ⁴⁵ In addition to the release of (identifying) VAT registration data, the consultation sought input on the sharing or publishing of (non-identifying) aggregate information and (anonymised) individual-level data with the aim of improving delivery of public services and promoting economic growth. See HMRC, *Sharing and publishing data for public benefit*, Consultation document, 17th July 2013 ("VAT Reg. Data Consultation").
- ⁴⁶ HMRC Open data strategy, at https://www.gov.uk/government/publications/open-data-strategy--2
- ⁴⁷ See e.g. HM Government, Open Data White Paper, *Unleashing the Potential*, June 2012; Shakespeare Review: An Independent Review of Public Sector Information, May 2013; Open Data Charter, G8, June 2013.
- ⁴⁸ HMRC VAT Reg. Data Consultation, *supra* n.45 at 3.7.
- ⁴⁹ *Ibid*, at 3.6.
- ⁵⁰ The core public release proposal was of just three data fields: VAT registration number, trading name, and Standard Industry Code (SIC) classification number.
- The proposal for controlled release covered: Registration number, organisational name, trading name, contact details (address, telephone and fax numbers, email and web addresses) and status details (SIC code, SIC code description, legal entity status [e.g. partnership, company, local authority, etc.], incorporation number and date [if company], date of registration, date of insolvency [if insolvent], date of deregistration [if deregistered], date of transfer of going concern. The proposal would also include records of the details and dates of changes made to these data fields.
- 52 "Disclosure of all or part of the VAT registration data set has the potential to benefit: those who provide services which seek to identify, verify or assist businesses, e.g. by improving the accuracy of such services; businesses and individuals acting for example as traders, customers, suppliers, lenders or employees, e.g. by making it easier to get independent, accurate verification about aspects of a business such as its credit rating; and the economy as a whole, by improving the flow of credit and trade." See HMRC VAT Reg. Data Consultation, *supra n. 45* at 3.9.
- ⁵³ *Ibid* at 3.12. This chimes with the G8 Charter's support for a presumption in favour of disclosure unless there is a compelling reason not to disclose.
- ⁵⁴ *Supra n.45* at 4.6 *et seg.*
- ⁵⁵ HMRC, Sharing and Publishing Data for Public Benefit, Summary of Responses, 10th December 2013, at 3.38.

- ⁵⁶ HMRC / BIS, Report on the Use of Non-Financial VAT Registration Data in Trade Credit Scoring, June 2014. Available at https://www.gov.uk/government/consultations/sharing-and-publishing-data-for-public-benefit
- ⁵⁷ Indeed, the findings cited by the Treasury were by public bodies or reviews with a remit to level the playing field: the OFT, the Competition Commission and the Taskforce on 'Boosting Finance Options for Business' headed by Tim Breedon. *Supra* n.45 at 3.1.
- ⁵⁸ *Ibid* at 3.3.
- ⁵⁹ Supra n.55 at 3.15 et seq.
- ⁶⁰ Supra n.56, at 2.
- ⁶¹ *Ibid* at 12. The CRAs asserted that given the time to refine their matching methodologies, i.e. in the context of a full rolled-out scheme, this figure would climb. *Ibid* at 16.
- *Ibid* at 12.
- ⁶³ *Ibid* at 13-14.
- ⁶⁴ *Ibid* at 14.
- *Ibid* at 16.
- ⁶⁶ *Ibid* at 16-17.
- ⁶⁷ See the mapping of credit registers and credit bureaus across the EU Member States in EU COM (2015), supra n.21 at Annex 1.
- ⁶⁸ Supra n.25 at 3.2.
- ⁶⁹ Ferretti, F. (2010), 'A European Perspective on Consumer Loans and the Role of Credit Registries: the Need to Reconcile Data Protection, Risk Management, Efficiency, Over-indebtedness, and a Better Prudential Supervision of the Financial System', *Journal of Consumer Policy*, 33(1): 1-27 at 3.
- ⁷⁰ Supra n.56 at 9.
- ⁷¹ Supra n.25 at 3.2.
- ⁷² Supra n.56 at 9.
- ⁷³ *Ibid* at 9.
- ⁷⁴ *Ibid* at 9.
- ⁷⁵ Bank of England (2014), *supra* n.4 at 12-13.
- ⁷⁶ HMRC Summary of Responses, *supra* n.41 at 3.15 et seq.
- ⁷⁷ HMRC Consultation, *supra* n.25 at 4.6.
- ⁷⁸ Bank of England (2014), *supra* n.4 at 12.
- ⁷⁹ *Ibid* at 18.
- ⁸⁰ *Ibid* at 12.
- ⁸¹ See Bank of England, Summary of feedback received on the Bank of England's May 2014 Discussion Paper on UK credit data, November 2014, esp. at 14 *et seq*.
- 82 Bank of England (2014), *supra* n.4 at 13.
- ⁸³ HMRC / BIS Joint Research Project, *supra* n.56 at Annex B.
- ⁸⁴ *Ibid* at Annex B: 'Variables used by credit reference agencies in existing credit scoring processes'.
- 85 Bank of England (2014), *supra* n.4 at 13.

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⁸⁶ HMRC / BIS Joint Research Project, *supra* n. 56 at Annex B.

⁸⁷ Bank of England (2014), *supra* n.4 at 13.

⁸⁸ *Ibid* at 18.

Ibid at 17.

⁹⁰ The World Bank ranks the UK number 1 in the world for depth of available credit data. See further EU COM (2015), *supra* n.21 at 210.

⁹¹ HMT Summary of Responses, supra n.41 at 2.35 et seq.

⁹² Bank of England (2014), *supra* n.4 at 17.

⁹³ s.7(2), 2015 Act: "finance provider" means a body corporate that (a) lends money or provides credit in the course of a business; (b) arranges or facilitates the provision of debt or equity finance in the course of a business; or (c) provides, arranges or facilitates invoice discounting or factoring in the course of a business'.

⁹⁴ HMRC/BIS, supra n.56 at 8.

⁹⁵ *Ibid* at Annex B.

⁹⁶ Ibid.

⁹⁷ Bank of England (2014), *supra* n.4 at 18.

⁹⁸ *Ibid* at 17.

⁹⁹ See for example Moscone, F. and Tosetti, E. (2015), 'Credit Risk Modelling for SMEs: a Spatial Analysis', paper presented at Credit Scoring and Credit Control XIV Conference, Credit Research Centre, University of Edinburgh, August 2015.

¹⁰⁰ Bank of England (2014), *supra* n.4 at 18.

The quote is from Zest Finance, *How We Do It*, available at https://www.zestfinance.com/how-we-do-it.html For an overview of "alternative credit scoring" practices in the US, see Robinson and Yu, *Knowing the Score: New Data, Underwriting, and Marketing in the Consumer Credit Marketplace* (Team Upturn, October 2014).

¹⁰² For example the project *SCRIBE: Semantic Credit Risk in Business Ecosystems:* "The data will include, for example, company financial information, qualitative information on past experiences of companies in obtaining finance, as well as legal action by creditors to recover unpaid debts, information on business relationships with foreign partners, data on the size of the market where the company operates, information on competitors, suppliers and customers......These data are integrated using emerging semantic technologies in order to derive the structure of current and past business ecosystems and model their dynamic evolution so as to predict their future states". See www.scribe.org.uk

¹⁰³ For example Adebayo, J., Lee, T. and Hurley, M. (2015), 'Credit Scoring the Era of Big Data: A Proposal for Legislative Action'. See http://www.law.georgetown.edu/academics/centers-institutes/privacy-technology/upload/FaTSCA_FinalMemo-Annexes-2.pdf

Defined as "...a person carrying on a business comprising the furnishing of persons with information relevant to the financial standing of individuals, being information collected by the agency for that purpose"; s. 145(8), CCA 1974.

¹⁰⁵ Explanatory Notes to the Consumer Credit Bill, HL Bill 36, 7th March 2005, paras 4 *et seq.* See further House of Lords, European Union Committee, Thirty-Sixth Report, *Consumer Credit in the European Union: Harmonisation and Consumer Protection*, HL 210-I, 5th July 2006, esp. Ch. 4.

¹⁰⁶ Explanatory Notes to the Consumer Credit Bill, *ibid* at para 4.

¹⁰⁷ See s.107, Explanatory Notes to the Financial Services Act 2012.

¹⁰⁸ HM Treasury and Department for Business Innovation & Skills, *A new approach to financial regulation: transferring consumer credit to the Financial Conduct Authority,* March 2013, at 1.3 *et seq.*

¹⁰⁹ ss.157-159, CCA 1974.

¹¹⁰ s.158 of the CCA is one of two statutory provisions empowering individuals to access their personal data held by CRAs; the other is s.7 of the Data Protection Act 1998, discussed below.

¹¹¹ s.160, CCA.

¹¹² https://www.handbook.fca.org.uk/

¹¹³ CONC 9.2, *ibid* [since repealed].

¹¹⁴ See FCA Policy Statement, *Consumer Credit – feedback on CP15/6 and final rules and guidance*, PS15/23, September 2015, at 19.

¹¹⁵ On balance the FCA agreed with the majority view that the provision "no longer served any useful purpose"; *ibid*.

¹¹⁶ Art. 2(a), DPD.

¹¹⁷ Art. 1(1), DPA.

¹¹⁸ The Principles of Reciprocity define consumer as "a named individual transacting in a personal capacity" and business as "an independent commercial organisation (of any size or legal structure) including sole traders and partnerships operating in their business capacity". See *Information Sharing Principles of Reciprocity*, *supra* n.31 at 4.1: 'Definitions'.

¹¹⁹ ICO, The Information Commissioner's Response to HM Treasury's consultation about competition in banking: improving access to SME credit data, 25 February 2014, at 1.

¹²⁰ s.158(4A) CCA 1974, as amended. See also *Consumer credit: Report of the Committee* (Cmnd 4596) (the Crowther Report), 1971.

¹²¹ In England and Wales, the High Court or county court; in Scotland by the Court of Session or the sheriff; in Northern Ireland by the High Court or a county court. See s.15(1), DPA.

¹²² s.13, DPA.

¹²³ s.14, DPA.

¹²⁴ s.7(3) DPA in conjunction with s.159(8) CCA.

¹²⁵ Guide to Credit Scoring 2000, available at https://www.bba.org.uk/policy/retail/credit-and-debt/debt-and-financial-difficulties/guide-to-credit-scoring/

¹²⁶ ICO Response to Treasury Consultation, *supra* n. 119 at 3. It is worth recalling that incumbent banks already have access to this type of data through operating customers' accounts; although such a reform would therefore increase the exposure of such data through wider sharing it would not reveal hitherto-masked or unavailable data.

¹²⁷ This hybrid term is used not by the government, but by the FCA in its Consultation Paper, Quarterly Consultation No. 9, June 2015, CP 15/19 at 6.14.

¹²⁸ Under baseline FCA rules, the provision of credit references on individuals is regulated only if the provider's business "primarily consists" of such activities: see FCA Handbook, PERG 2.7.20L. Therefore, those CRAs

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which focus primarily on credit risk analysis of businesses are not FCA-regulated even in the instances where they provide references on small enterprises or even individuals. The new Small and Medium Sized Business (Credit Information) Regulations ("SME Credit Data Regulations") close this loophole: see HM Treasury, Summary of Responses, *supra* n.41 at 2.79 *et seq.*, and s.15 of the Regulations.

- ¹²⁹ s.15, SME Credit Data Regulations.
- ¹³⁰ s.16(2), *ibid*.
- ¹³¹ FCA Discussion Paper, *Our approach to SMEs as users of financial services*, November 2015, DP 15/7, esp. at 2.4 et seq.
- ¹³² *Ibid*, at 3.13.
- ¹³³ *Ibid*, at 3.14-3.15.
- ¹³⁴ s.17, 2015 Regulations.
- ¹³⁵ See FCA (2015) *supra* n.127 at 6.10 *et seg*.
- ¹³⁶ By "harmonising" treatment of SMEs and of individual consumers; see FCA (2015), *supra* n.131 at part 6.
- ¹³⁷ Part 6, SME Credit Data Regulations.
- ¹³⁸ FCA (2015) supra n.127 at 6.37: "Compatibility statement".
- 139 s.19, SME Credit Data Regulations.
- 140 [2013] EWCA Civ 108 (20 February 2013).
- ¹⁴¹ *Ibid*, paras 53 et seq.
- ¹⁴² Source: search on ICO's website.
- ¹⁴³ ICO Response to Treasury Consultation, *supra* n.119 at 5.
- ¹⁴⁴ ICO, Findings from ICO review visits to credit reference agencies, September 2014. See https://ico.org.uk/media/action-weve-taken/
- ¹⁴⁵ ICO, 'ICO praises credit reference industry data handling', 30th September 2014, available at https://ico.org.uk/about-the-ico/news-and-events/news-and-blogs/2014/09/ico-praises-credit-reference-industry-data-handling/
- ¹⁴⁶ Since the beginning of 2012, 51 complaints have been made against Experian (6 upheld), 32 against Equifax (6 upheld) and 8 against Callcredit (2 upheld).
- ¹⁴⁷ ICO Review Visits, *supra n*. 144 at 5-6.
- ¹⁴⁸ Examples include financial links, linked addresses, and alias information; *ibid* at 16.
- ¹⁴⁹ *Ibid* at 6-7.
- ¹⁵⁰ See generally IRISS Increasing Resilience in Surveillance Societies, *Deliverable D3.2: Surveillance Impact Report* (June 2014), at Ch.3.
- ¹⁵¹ *Ibid* at 117.
- 152 ss.12(2)(b)(iii) and (iv), SME Credit Regulations.
- ¹⁵³ A Freedom of Information request made by the authors to the British Business Bank (BBB) in respect of CRAs' responses to the Call for Information, *supra* n. 38, specifically regarding legal, fraud and compliance, was rejected in October 2015 under s.43(2) of FOIA 2000, which exempts information from disclosure if it would, or would be likely to prejudice the commercial interests of any person.
- ¹⁵⁴ IRISS (2014), *supra* n.150 at 135.

¹⁵⁵ Than in the comparator jurisdictions: Austria, Italy and Hungary; *ibid*.

Ibid at 135.

¹⁵⁷ Ferretti, F. (2010), *supra* n.69 at 15. See further Ferretti, F. (2013), 'The Legal Framework of Consumer Credit Bureaus and Credit Scoring in the European Union: Pitfalls and Challenges – Overindebtedness, Responsible Lending, Market Integration, and Fundamental Right', *Suffolk University Law Review*, 46: 791-828 at 821.

¹⁵⁸ Art. 1, DPD; Art. 1, Draft General Data Protection Regulation, 2012/011 (COD), Brussels, 15 December 2015 ("draft GDPR").

¹⁵⁹ See Amberhawk Associates, 'The Recitals are essential to your understanding the General Data Protection Regulation', 28 January 2016, at http://amberhawk.typepad.com/amberhawk/

Association of Consumer Credit Information Suppliers (ACCIS), Response to the Proposal for a General Data Protection Regulation – Perspective of Credit Reporting Agencies, 16th September 2015, at 2. Available at http://www.accis.eu/fileadmin/filestore/position_papers/

The key economic literature on the rationales for further increasing the availability of credit data, principally grouped under reduction of adverse selection and moral hazard, was reviewed in Bank of England (2014a), supra n.4; see also World Bank (2011), supra n.5 esp. Ch.2., Encouraging responsible lending is also frequently cited as a central benefit; see for example Ferretti, F. (2015), Credit bureaus between risk-management, creditworthiness assessment and prudential supervision, EUI Working Paper LAW 2015/20, esp. at 5-9. In furtherance of such goals, the prospect of creating a central credit registry in the UK is a recurring theme in policy circles: see Bank of England (2014b), supra n.41 and World Bank, Doing Business 2015: Going Beyond Efficiency (12th Edition, 2014) at 67 et seq.

¹⁶² See Bank of England (2014a), *ibid* at 5. Notably from a data protection perspective, the Article 29 Working Party has accepted that the communication of information on blacklisted debtors fosters a "*legitimate interest* in the preservation and stability of the financial system which justifies the communication of this information to third parties". See A29WP on Data Protection, *Working Document on Blacklists*, 3 October 2002, at 4 [emphasis added].

Observing that "there is no way to directly measure creditworthiness because the very notion of creditworthiness is a function of the particular way the credit industry has constructed the credit issuing and repayment system [...]," see Barocas, S. and Selbst, A. D. (2016, forthcoming in *California Law Review*, Vol. 104), 'Big Data's Disparate Impact', at 10.

¹⁶⁴ HMT Summary of Responses, supra n.41 at 2.62 et seq.

¹⁶⁵ Art. 6.1(a) draft GDPR.

¹⁶⁶ Arts. 6.1(b) and (f), *ibid*.

¹⁶⁷ Art. 4.8, *ibid*.

¹⁶⁸ Art. 7.2, *ibid*.

¹⁶⁹ Art. 7.3. *ibid*.

¹⁷⁰ Recital 25, ibid.

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¹⁷¹ Ferretti, F. (2006), 'Re-thinking the regulatory environment of credit reporting: Could legislation stem privacy and discrimination concerns?', *Journal of Financial Regulation and Compliance*, 14(3): 254-272 at 263-264.

¹⁷² Recital 34, draft GDPR.

¹⁷³ Recitals 33 and 34, *ibid*. As regards Recital 34, note that this provision targets in particular processing by public authorities.

¹⁷⁴ Ferretti (2010), *supra* n.69 at 18. Similarly, see HMRC VAT Reg. Data summary of responses, *supra* n.55 at 3.30.

¹⁷⁵ ACCIS, 'The Lending Journey: A case study on the potential impact of the GDPR on consumers' access to credit', (no date) at 4. See http://www.accis.eu/activities/publications.html

¹⁷⁶ IRISS (2014), supra n.150 at 134.

¹⁷⁷ See for example, advocating a "fair transaction model of consent" allied to implied consent in limited contexts as alternatives to the GDPR's strengthening of the "autonomous authorisation model", Schermer, B. W., Custers, B. and van der Hof, S. (2014), 'The crisis of consent: how stronger legal protection may lead to weaker consent in data protection', *Ethics and Information Technology*, 16:171-182.

¹⁷⁸ See ss. 2-3, Loi no. 78-17 du 6 janvier 1978 relative à l'informatique, aux fichiers et aux libertés.

¹⁷⁹ Art. 15(1), DPD.

¹⁸⁰ Bygrave, L. A. (2001), 'Minding the Machine: Article 15 of the EC Data Protection Directive and Automated Profiling', *Computer Law & Security Report*, 17(1): 17-24 at 17.

¹⁸¹ See Korff, D., Comparative study on different approaches to new privacy challenges in particular in the light of technological developments, LRDP Kantor Ltd and Centre for Public Reform, January 2010, at 82 et seq.

¹⁸² Summarising the myriad possible interpretations, see Bygrave, *supra* n.181 at 18 *et seq*. The standard CRA industry position on this matter is, by contrast, unequivocal: "The outcome of the automated process by the [CRA] is one factor in the decision taken by [the lender] on whether or not to give [the applicant] a mortgage. It is this decision, not the result of the automated processing performed by the [CRA] that has legal consequences for [the applicant]". See ACCIS, *The Lending Journey*, *supra* n.176 at 3.

¹⁸³ Arts. 12(4)-(8), DPA.

¹⁸⁴ Arts. 12(6)-(7), *ibid*.

¹⁸⁵ Guide to Credit Scoring 2000, supra n.125 at 6.4.

¹⁸⁶ *Ibid*, at 7.10-11.

¹⁸⁷ Art.4(3aa), draft GDPR: "[P]rofiling means any form of automated processing of personal data consisting of using those data to evaluate certain personal aspects relating to a natural person, in particular to analyse of predict aspects concerning that person's performance at work, economic situation, health, personal preferences, interests, reliability, behaviour, location or movements." Note that it is only possible to "profile" natural persons under the Regulation; any extension of associated rights to "SME consumers" under the UK scheme would therefore represent a further innovation.

¹⁸⁸ Art. 20, draft GDPR.

¹⁸⁹ Art. 20.1b, *ibid*.

¹⁹⁰ See, for example, art. 14.1(h).

¹⁹¹ Adebayo, Lee and Hurley (2015), *supra* n.103 at 10-11.

¹⁹² VI/ZR 156/13, BGH (German Federal Court of Justice), judgment of 28 January 2014. See DataGuidance,

¹⁹³ Translation by DataGuidance, Germany: Federal Court – greater transparency to be balanced with protection of trade secrets, 13 February 2014,

at http://www.dataguidance.com/dataguidance_privacy_this_week.asp?id=2219

¹⁹⁴ Exact details are scarce. Those reproduced here are as described by privacy lawyer Michael Horak, at http://www.datenschutzrechtblog.de/en

¹⁹⁵ Guide to Credit Scoring 2000, supra n.125, Introduction.

¹⁹⁶ "[If] under the Regulation a requirement for manual intervention was introduced every time automated processing was conducted [...] [t]he process would be slowed and the decision would no longer be objective. Humans introduce bias into the system, decisions could be made on factors which are not objective such as personal preferences or historical connections." See ACCIS, *The Lending Journey, supra* n.176 at 3.

¹⁹⁷ Arguing *inter alia* that the "intelligibility" of emerging data analysis is crucial, see Pasquale, F., *The Black Box Society: The Secret Algorithms that Control Money and Information* (Harvard University Press, 2015), esp. Chs. 4-6.

¹⁹⁸ Ferretti, F. (2013), *supra* n.157 at 814.

¹⁹⁹ See for example, reporting that discrimination constitutes a barrier for ethnic minority businesses in three key areas (business-entry decision, business reasons, perceptions of unequal treatment), Carter, S., Ram, M., Trehan, K. and Jones, T., *Diversity and SMEs*, Enterprise Research Centre White Paper No.3 (April 2013), at Executive Summary and 20-21, and generally Carter, S. and Mwaura, S., *The Financing of Diverse Enterprises: Evidence from the SME finance monitor*, Enterprise Research Centre Research Paper No.18 (May 2014).

²⁰⁰ Barocas and Selbst (2016), *supra* n.163, at 1.

²⁰¹ Zarsky, T. Z. (2015), 'Understanding discrimination in the scored society', *Washington Law* Review, 89: 1375-1412 at 1396. See also Crawford, K. and Schultz, J. (2014), 'Big Data and Due Process: Toward a Framework to redress Predictive Privacy Harms', *Boston College Law Review*, 55:93-128.

²⁰² Zarsky (2015), *ibid* at 1396.

²⁰³ *Ibid* at 1397.

²⁰⁴ On this point see also generally Barocas and Selbst (2016), *supra* n.163.

²⁰⁵ Pasquale (2015), *supra* n.196 at 41.

²⁰⁶ See Andreeva, G., Ansell, J., and Crook, J. (2004), 'Impact of anti-discrimination laws on credit scoring', *Journal of Financial Services Marketing*, 9(1): 22-33; Chan, W. L. and Seow, H.-V. (2013), 'Legally scored', *Journal of Financial Regulation and Compliance*, 21(1): 39-50.

²⁰⁷ See Article 9.1, draft GDPR: "The processing of personal data, revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, trade-union membership, and the processing of genetic data, biometric data in order to uniquely identify a person or data concerning health or sex life and sexual orientation shall be prohibited."