Credit where credit is due: scoring the right balance in today's economy

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Contents

Foreword – the challenge of individual assessments in automated systems

> Our Society has been taught to believe that an individual's creditworthiness is primarily related to their personal credit history. I feel certain that for anyone who has any regard for the concept of individuality, reviewing the credit-scoring systems of some of our major national creditors would be a chilling experience.

US Senator Paul E. Tsongas, 1979[1]

Credit is an age-old concept. It is the idea that goods and services are exchanged with the promise (and the trust) that they will be paid for at some point in the future. Since the beginning, the most important question has been, how can you know that the credit extended will be paid back? Not only this, but how will it be paid back, when will it be paid back, how much will be paid back and how long will it last?

An easy mnemonic that neatly summarises the common assumptions around the chances of whether a person will pay everything back is the '3Cs of credit': collateral, capacity and character. Through the middle ages and perhaps even before that, local money lenders went through this 'mental check list' to determine whether or not they would extend the loan.

Through the late 1800s and early part of the 1900s, as larger banks started forming, the rigour introduced by formal banking operations meant that most applicants for loans would have to see a loan officer for an interview. There, the loan officer would review the applicant against a series of gates (similar to the 3Cs) in addition to reviewing the applicant's banking history and perhaps checking with a local credit bureau to identify any past bankruptcies.

However, with the 1950s rolling in, the trend to automate bank operations grew and banks were keen to streamline any dependency on slower human processes (not to mention the higher costs for training and development of loan officers). However, implementing automated computerised scoring systems that could accurately account for all the 3Cs was a challenge. How could an automated system accurately measure character for example? It couldn't, and so instead, pairing an individual's past credit history with a few bank held data points became the norm (a lot of the proverbial credit for this solution goes to the Fair Isaac Corporation, which

[1] Noel Capon: Credit Scoring: A critical analysis

became known as 'FICO' in later years). The framework was refined throughout the 1980s and largely relied on huge amounts of past credit history data for individuals. This paved the way for the modern credit bureaux that would collect, clean and store credit history data, making it available to banks and lenders in their networks.

Somewhere in that process, the 3Cs were compressed and so zcharacter and capacity lost attention. The irony of this is made clear in comments in 1912 from the founder of JPMorgan Bank, John Pierpont Morgan. He stated to the US Congress[2] that "The first thing is character, before money or property or anything else. A man I do not trust could not get money from me on all the bonds in Christendom." Over the course of the twentieth century, this key metric was all but forgotten by banks in the quest to automate and streamline costs.

Fast-forward to today, and while there has been an influx in new data for some lenders, most institutions around the world still rely heavily on past credit history, which effectively means that the system of giving out credit has not changed in decades.

Aire believes that it is time to add a few upgrades to the classical system of credit scoring and make it fit for purpose again, so that lenders and regulators can feel confident the right amount of credit is given out to the right people. This is why we have embarked on this research, which illustrates the importance of taking the full picture into consideration when making credit decisions. Today, we have the opportunity to make meaningful assessments that go way beyond evaluating criteria such as the capital that people are sitting on or the amount of time that people have lived in the same place. Making credit scoring fit for purpose means using technology to augment tick-box questionnaires and putting a new emphasis on affordability and character traits. This also opens up the opportunity to spot indicators of financial distress during the application process, and accordingly limit the credit extended.

> "The first thing is character, before money or property or anything else. A man I do not trust could not get money from me on all the bonds in Christendom."

In fact, in recent years many lenders' underwriting criteria have become increasingly rigid. While this may suit traditional-style employment and personal characteristics, changing trends such as the huge increases in self-employment and freelancing, together with zero hours contracts and the emergent 'gig' economy, are challenging the boundaries of traditional credit scoring. Furthermore,

[2] Testimony of J. P. Morgan before the Banks and Currency Committee of the House of Representatives, 1912

'thin-file' applicants who haven't applied for a credit product in the UK before – because they have lived abroad or because they have just reached the age at which it is legal to take out credit – often fall through the net of traditional credit scoring.

An inevitable result is that there is an increasing number of inherently creditworthy loan applicants who are being turned down, or charged extra, for credit. This problem can be solved — We just need to sharpen up our blunted credit scoring tools. By blending in metrics that account for the future potential of borrowers, in addition to their credit knowledge and financial maturity, we can all better assess the new and burgeoning segments of borrowers in this new world.

[2] Testimony of J. P. Morgan before the Banks and Currency Committee of the House of Representatives, 1912

1. Introduction and overview

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UK- and US-led market data from the last few years suggests that a large amount of consumer debt is currently held by people who could be trapped with an affordability problem. At the same time, changes in the way that we work and live – apparent in the rise of the gig economy, freelancing and zero hour contracts – mean that more and more consumers are outgrowing the established framework of automated credit scoring.

This has consequences for the market: there is a misallocation of credit, where some people are perhaps spurred on to bite off more than they can chew, while others who would be genuinely able to afford credit face problems accessing it. To understand this topic better, Aire partnered with independent research agency Populus and conducted research to dive deep into the drivers of affordability at household level and outside forces in the macroeconomic environment.

This report looks behind the façade of the 'doom and gloom' headlines of rising consumer credit, to identify the people that actually hold the credit. Section 2 of this report dives into the findings of Aire's survey among a representative sample of 2,000 UK adults. It finds that half of them hold (mostly unsecured) consumer credit debt in the form of one or more of the following: credit cards (40%), personal loans (13%), monthly car leases (11%) or the monthly cost of paying off domestic appliances (12%). We explore these stats further to better understand the credit situation across different demographics and socio-economic groups.

Section 3 of our research confirms that some credit seems to be allocated to people who could be stuck with an affordability problem. One example is the £20bn of credit card and personal loan debt that is held by people who have had to dip into an unauthorised overdraft in the past twelve months.

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On the other hand, we have also identified the amount of debt held by people who show signs of being able to afford it comfortably, with £56bn of credit held by people who have paid back more than the minimum on their debt in the last month. Taking a look at the future, we have also identified that most parts of the UK population are expecting to increase their consumer credit commitments faster than they are expecting their income to grow over the next two years, which could drive the affordability squeeze further.

Section 4 delivers evidence that what we call 'financial maturity' is strongly connected to a healthy financial life. Through a top-line experiment, we looked for signs of financial maturity among the UK population and found that up to £35bn of UK credit card and personal loan debt is currently held by people who weren't able to show signs of high financial maturity in our specific research setting. The good news, however, is that almost £70bn is held by people who show healthy signs of financial maturity. Section 4 also puts a special focus on examples of individuals that are likely to be rejected by traditional credit scoring, despite demonstrating good financial understanding and management.

Finally, section 5 summarises our findings and explains Aire's mission of helping lenders tackle any misallocation of consumer credit without increasing their risk thresholds.

2. The current state of consumer credit

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Hardly a day passes without a news story in the UK media 'raising concerns' about mounting consumer debt. After peaking at 160% in early 2008, the UK's household debt as a percentage of disposable income[3] now sits at 141.8%. This compares with 265.8% in Denmark (the highest for an OECD country) and 104.0% in the United States. In March 2017,[4] it was stated that the UK's household debt-to-income ratio will rise slowly over the next few years and reach 153% in early 2022.

At the end of March 2017, people in the UK owed £1.529 trillion,[5] which equates to an average household debt, including mortgages, of £56,632 – or an average debt per adult of £30,277. In 2016, there were 3.3 billion purchases on credit and charge cards totalling £185.7 billion.[6]

What type of credit is out there and who is holding it?

A survey[7] by Aire has found that 50% of adults have (mostly unsecured) consumer credit debt in the form of one or more of the following: credit cards (40%), personal loans (13%), monthly car leases (11%) or the monthly cost of paying off domestic appliances (12%). On average, people in the UK pay off £40 for white goods each month with an additional £93 for leasing a car, while shouldering £2,158 of credit card and personal loans debt.

Other notable demographic and socio-economic findings from the survey relating to existing debt commitments are that:

People aged between 18 & 24:

- average personal loan £11,746 (that's almost 3 times the national average)

Higher earners:

- average credit card debt £2,755 (compared to a national average of £1,956)
- average personal loan £6,424 (compared to £3,923)
- average monthly car leases £139 (compared to £93)

Freelancers:

- Average monthly car leases £120 (compared to a national average of £93)
- Average monthly white goods cost £78 (compared to £40)

Parents:

- average credit card debt £2,666 (compared to a national average of £1,956)
- average monthly white goods cost £63 (compared to £40).

[3] OECDstat, Household Dashboard: cross country comparisons

[4] Office for Budget Responsibility

[5] The Money Charity: The Money Statistics May 2017

[6] The UK Cards Association: Summary of key statistics for Q4 2016

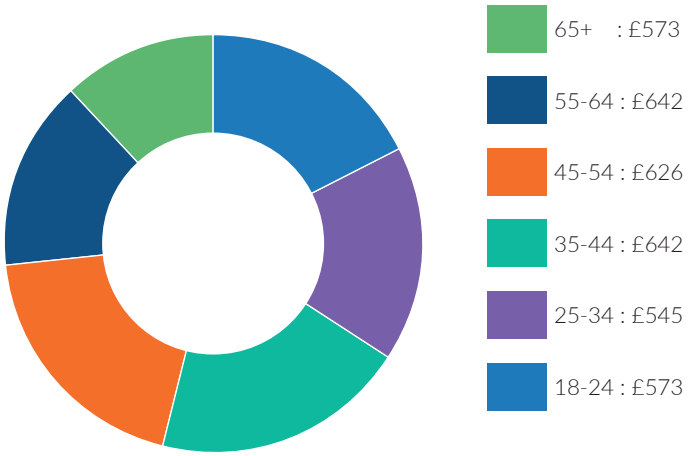
[7] Online survey of 2,095 adults conducted by Populus for Aire on the 22nd and 23rd May 2017

Where has the rise in consumer credit over the last two years come from?

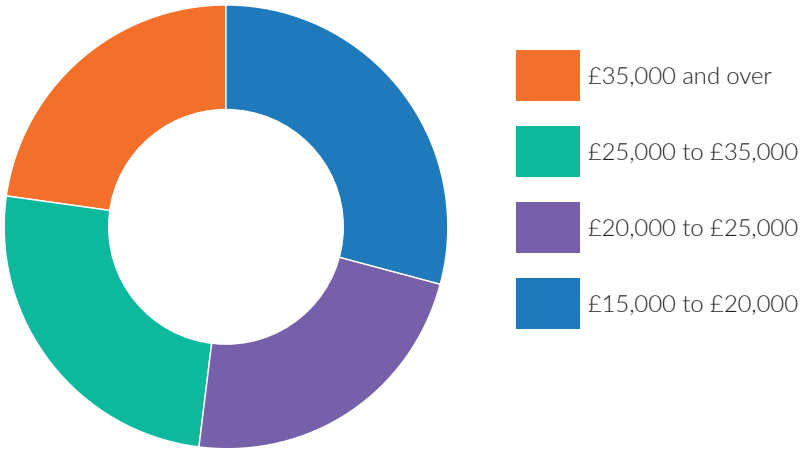
Over the last two years, there has been an increase in commitments for all types of credit that we tested for, especially so for personal loans, which respondents say have increased by an average of £605.

A quarter (26%) of respondents have increased their credit card and personal loan debt over the last two years with an average increase of £548. The average increases for different demographics were:

Age vs Debt (credit cards, personal loans) increase in last 24 months



Household Income vs Debt (credit cards, personal loans) increase in last 24 months



This shows that consumer credit is an increasingly popular form of financial support for young British families – especially, but not exclusively, for those who are in work and at the lower end of the income spectrum.

What does the future hold?

One-in-ten (11%) think that they will increase their credit card and personal loans debt in the next two years. Those who do think they will increase their credit card and personal loan debt are likely to do so by an average of £421. This is equal to an overall increase of £2.3bn in credit card and personal loan debts that people are planning to take out.

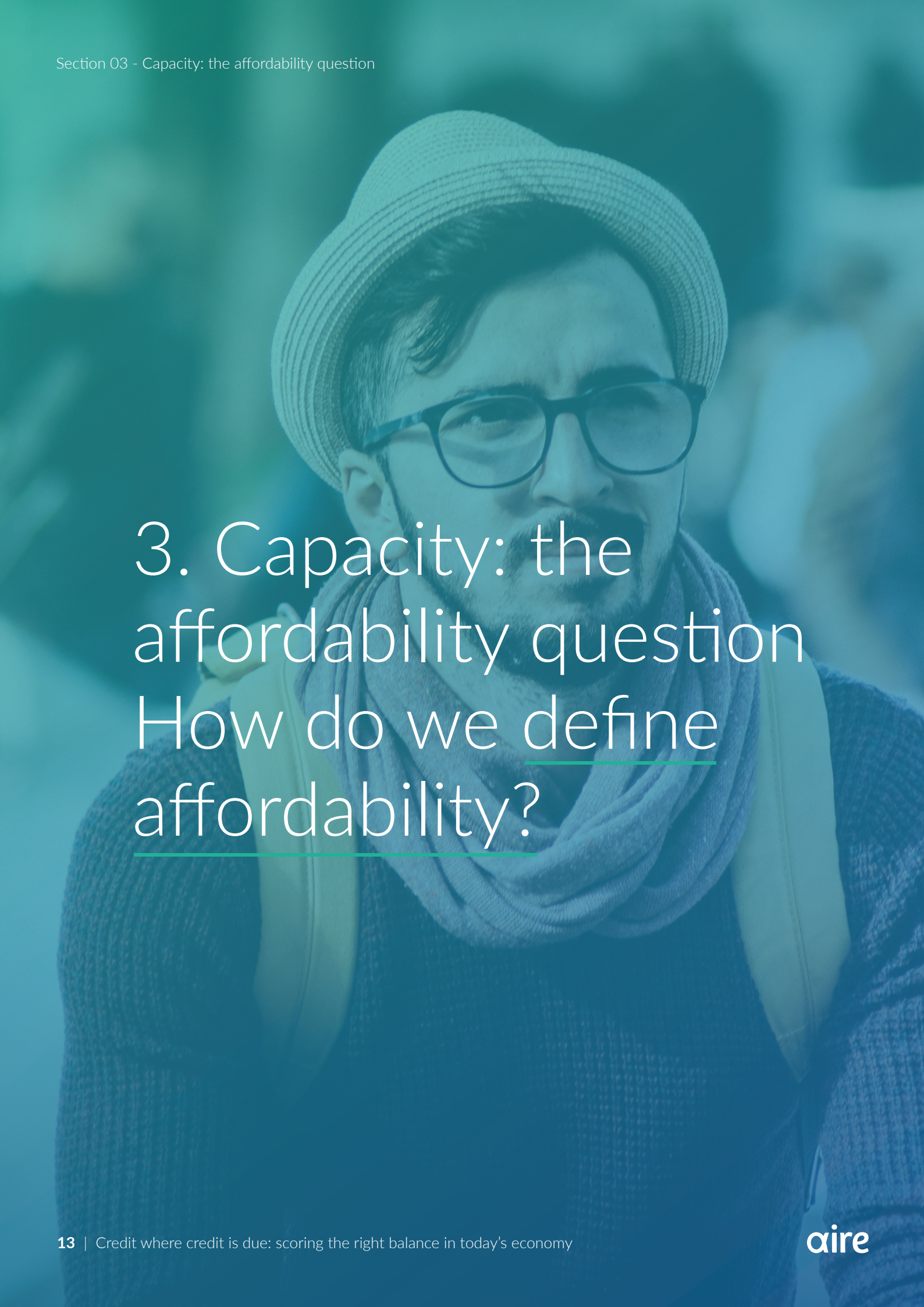
The groups indicating that they are most likely to increase this debt (compared to the overall 11%) are:

- 19% of freelancers – which equals almost 900,000 people who are planning to increase their credit card and personal loan debt by £300m
- 15% of those between 18 to 24 years old – which is equal to almost 800,000 people who are planning to increase their debt by £500m
- 16% of those earning over £35,000 – which will equate to 728,000 people increasing their debt by £315m.

It is worth noting that the above only looks at the planned increases in consumer debt over the next two years. This is why we can expect the real increase in these areas to be even higher than indicated above, as we take into account different types of unplanned increases.

While heading towards further increases in consumer debt, the big question remains: will people actually be able to manage the money that they are planning to take out on top of the debt they already have?

This leads us into the next topic 'Affordability' where we discuss the current debt servicing capabilities and the future debt servicing capabilities of consumers.



3. Capacity: the affordability question How do we define affordability?

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In general, capacity is defined in the context of consumers' financial metrics such as income & monthly expenses and lenders use these metrics to determine their ability to service the financial or a credit agreement.

In this paper, we discuss affordability which, rather than focusing on outcomes for the lender, instead looks at the consumer's situation and their potential for getting into financial difficulty.

Squeezed affordability

Affordability in general is related to consumers' ability to continually serve their debts or credit agreements. However there is not a single, agreed quantitative measure to determine an 'unaffordable' quantity of consumer credit (or other) debt. There is no clear historical evidence of a 'tipping point' beyond which the amount of borrowing goes from being affordable to unaffordable. In order to address the problem of 'credit agreements with a high risk of unaffordability' financial institutions are looking at new solutions. Likewise, regulators have been focusing on understanding follow-on impacts, such as financial distress, a theme that is relevant to this paper.

In order to research this topic, on the consumer front, we have conducted a survey to understand the problem better.

In terms of day-to-day spending the survey found that many, at least occasionally, live beyond their income means, in one of the following ways: In the last year, 45% have used savings to cover monthly spending, one-in-four (24%) have used an authorised overdraft; one-in-five (21%) have borrowed from friends or family; one-in-eight (12%) have used an unauthorised overdraft and one-in-ten (10%) have defaulted on a bill.

In terms of the value of credit agreements with a high degree of unaffordability this means that:

- £20bn of credit card and personal loan debt is held by people who have had to dip into an unauthorised overdraft over the past twelve months
- £13bn of credit card and personal loan debt is held by people who defaulted on a bill in the last year
- Over £8bn of credit card and personal loan debt is held by people who have had to use the services of a debt charity over the past twelve months.

On the other hand, we have also identified the amount of debt held by people who show signs of being able to afford it comfortably:

- £56bn is held by people who have paid back more than the minimum on their debt in the last month
- £54bn is held by people who regularly save into a pension
- £40bn of credit card and personal loans is held by people who at the same time put money aside every month for saving.

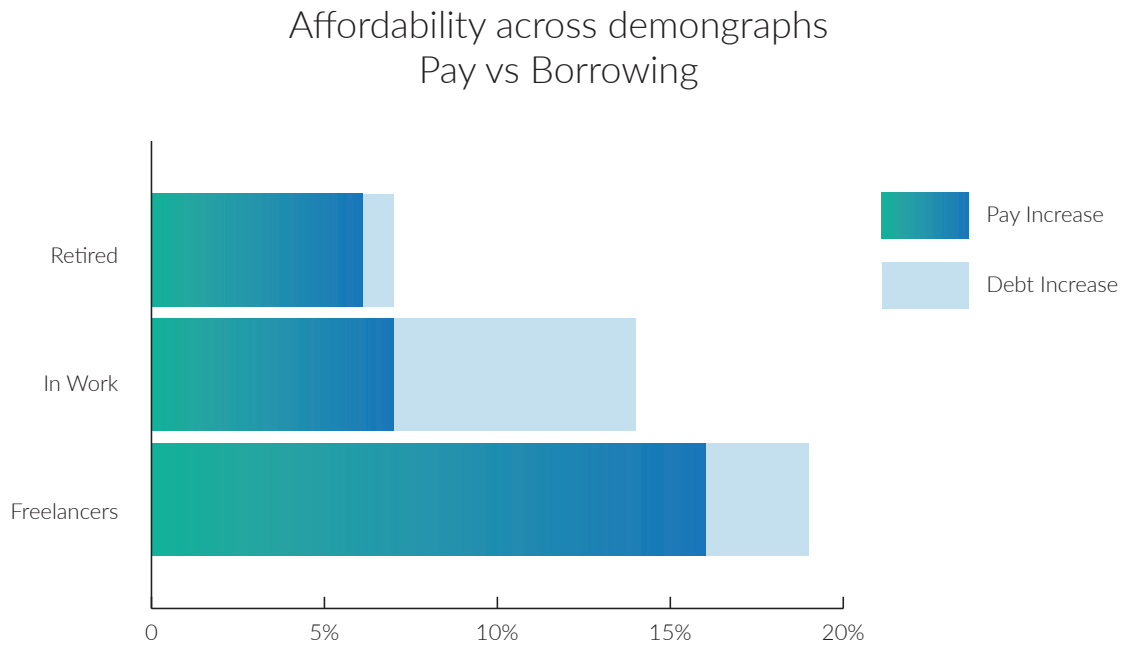
Affordability across different demographics

Public sector pay rises, MPs apart, have been capped at 1% per annum until 2020 so it is not surprising that many respondents to the survey are not anticipating that their annual income will change much in the next two years. Comparing future income expectations against anticipated increases in borrowings shows that young adults aged 18-24 expect the biggest increase in their income (58%) in the next two years. This would leave a significant and comfortable margin over their expected 15% increase in borrowings. Expressed as social grades, C1 is the only social grade expecting its income to rise faster than its debt (13% increase in salaries vs. 10% increase in debt). In comparison, social grade AB is anticipating a 14% rise in debt against a 9% rise in salary, grade C2 is expecting a 12% rise in debt and a 5% rise in income and social group DE is expecting an 11% rise in debt but an 8% rise in income.

At the other end of the scale those with children in their household are likely to have the biggest reverse gap: they expect their income to increase by 7% but their borrowings to increase by 19%. The level of financial commitments and requirements will change as adults enter and pass through the various life stages. Comparatively, those who are in work are also expecting an increase of debt by 14%, while their income will only rise by 7% – illustrating the affordability squeeze predicted to hit the middle class hardest.

Worryingly, the retired are expecting debt to increase by 7% while income is only thought to rise by 6%. Meanwhile, those who are in work are expecting a pay rise of 7%, but are also expecting their borrowing to rise by 14%, illustrating the financial strain on the middle classes. What's more, the group expecting the biggest increase in pay (16%) – freelancers – still expect their debt to increase by 19%.

[8] FCA: Consumer Credit sourcebook, 2017



The crucial question: what are consumers able to afford?

No lender wants bad debts. That's why responsible lending is not just in the interests of consumers, but lenders too. The current rules from the Financial Conduct Authority (FCA) require an assessment of the creditworthiness of each customer and the process involves assessing whether lending could 'adversely impact the customer's financial situation'. It also needs to determine the ability of the customer to make the repayments as they fall due.

What a lender wants to see is a track record of responsibility from the applicant and that servicing the loan will be affordable. The lender might take into account income, expenditure and existing indebtedness, while also possibly considering available credit lines which haven't been used – such as those untouched credit cards lying in the drawer. If someone becomes unemployed, existing unused credit becomes by far the easiest source of borrowing available. The Aire survey found that three-in-ten adults (30%) would need to take out extra credit to pay for essentials if their household lost its main source of income for 2 months or more.

Strictly enforced automated underwriting criteria mean that many applicants may 'tick all of the boxes', but a serious examination of individual affordability is not taking place. While human underwriting is not easily scalable, today's technological achievements in Artificial Intelligence (AI) make it possible to emulate human underwriting at scale to allow assessment of individual situations and the detection of financial distress. Augmenting current credit scoring practices through the right technology means that lenders give out less credit to those who are trapped with an affordability problem. At the same time, lenders can properly assess those who fall through the net of conventional credit scoring.

The number of assets held by people is not the answer

Those who are classified as 'asset rich but cash poor' need to be assessed in their full picture. The survey found that this group is just as likely as the rest of the population to have engaged in one or more of the following activities indicative of financial distress to cover their financial commitments:

- Used an unauthorised overdraft
- Used the services of a debt charity
- Borrowed money from friends or family
- Defaulted on a bill
- Transferred savings to current account.

It is worth being aware that merely having asset collateral will not necessarily be enough to cover financial needs.

Where they are offered a loan, many of the consumer groups mentioned above will also be particularly vulnerable to the potential increase in interest rates, or less generous promotional terms, levied as a result of the widespread use of 'personal' or 'risk' pricing by lenders. The Consumer Credit (Advertisements) Regulations from 2010 require that 51% of successful applicants are offered the advertised APR of a loan or credit card.[9] This means that a proportion of successful loan applicants may be offered a loan but at a higher interest rate and/or, in the case of introductory rate credit cards, a shorter 0% introductory period.

[9] The Consumer Credit (Advertisements) Regulations 2010

4. Character: how financial maturity can help determine the likelihood of credit repayment

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Ongoing changes to the structure and fabric of employment are having significant implications in access to, and acceptance for, credit. Gone is the 'job for life' expectation of previous generations –the average person is now likely to have eleven different jobs over the course of their lifetime.[10] Zero hours contracts, multiple part-time jobs, freelancers and the gig economy highlight the flexibility that many individuals now choose to offer. This has been accompanied by a significant increase in the self-employed: from a recent low of 3.2 million in the fourth quarter of 2000 to just over 4.7 million by early 2016.[11]

Conventional credit scoring techniques stem from a time after the Second World War, when it was enough for people to tick just a few boxes to show what they could afford. With the rapidly changing economy these criteria have diverged from the realities of life for many people in the UK and beyond.

The result is that today, some people are inadvertently prompted to bite off more than they can chew in terms of credit, while on the other hand, there are people who could genuinely afford to take out more credit, but are excluded from the system because they are freelancers or gig economy workers – people that can't be processed by the traditional credit scoring frameworks.

Aire believes that looking at individuals who display a fundamental ability to comprehend their personal financial situation – those who show financial maturity – can be a powerful indicator of an individual's' propensity to being able to handle debt responsibly (i.e. a powerful indicator of 'character' as stated in the 3Cs of credit scoring).

Those who show financial maturity – can be a powerful indicator of an individual's propensity to being able to handle debt responsibly

[10] The Pensions Regulator, Automatic Enrolment Commentary and analysis (July 2016).

[11] Office for National Statistics: Trends in self-employment in the UK 2001 to 2015

The relevance of financial maturity for healthy finances

To explore the correlation between financial maturity and the financial situation of individuals, we gave respondents a simple test to see if they are able to understand what a mix of different weekly and monthly commitments means for their overall annual finances:

We asked respondents to consider three types of commitments and point out whether they think the annual cost of all three would be above or below £1,000:

- £9.99 Spotify music streaming (monthly)
- £7.49 Netflix movie streaming (monthly)
- £20.26 Payment for sofa (weekly).

The annual sum of the costs outlined above is £1,263.28 (i.e. significantly above £1,000). In fact, already the weekly payments for the sofa alone push the annual costs above the £1,000 mark.

Taking the replies as only one indicator of financial maturity (of course it can be nothing more than that), the results show that those who answered correctly show good signs of responsible money management:

- Of those who said that they paid back more than the minimum on their credit card over the last twelve months, 62% answered correctly while only 38% of people answered incorrectly
- Of those who've used the services of a debt charity over the past 12 months, only 36% answered correctly and 64% answered incorrectly.

Overall, 59% of respondents gave a correct answer to our question. Top of the class of those correctly calculating the overall financial cost were – by far – those with an annual income between £20,000 to £25,000 (70%), those in social grade AB (63%) and those aged 55 to 64 (62%) and 18 to 24 (61%).

For current debt levels, this means that:

- Up to £35bn of UK credit card and personal loan debt is currently held by people who have shown low (top-line) financial maturity in our test question
- Almost £70bn is held by people who were able to respond correctly.

The good news for lenders is that they can look forward to over 12% of the UK adult population, or 3.5m British people, who replied correctly to our test question and are planning to take out more credit over the next two years. On average, the credit market can expect the following increases among this customer segment:

- £420 NET credit card, personal loans, which is equal to more than £1bn overall
- £177 weekly commitments for car lease / white goods, which is equal to £324m.

Financial maturity for groups that are easily excluded from the credit market

Looking at those groups that are likely to fall through the net of classic credit scorers, we can see that there are potential opportunities for the market that run the risk of being missed by traditional scorers. This is illustrated by the fact that partners who have used Aire's AI credit scoring methodology have increased credit approvals by an average of 14% in the near prime segment of the population who would not otherwise have had their credit approved. Aire has also already helped to actively expand the UK lending market by assessing over 100,000 people.

Freelancers: 56% of freelancers surveyed passed our top-line experiment of good financial maturity. However, mainly due to their fluctuating income, it is often a struggle for lenders to properly assess freelancers and take the full picture into account.

It is obvious that there can be missed opportunities here for the market, as those freelancers who indicate that they have good financial maturity, are often already planning to take out new debt over the next two years:

- £331 of credit card / personal loans
- £120 of car lease / white goods.

Younger people: for younger people, defined as 18-24 year olds, their small-file credit history can be a real problem when it comes to accessing credit. At Aire, we try to take the full picture into account to identify if someone is financially mature.

Of those aged between 18 and 24, 61% answered our question correctly. Their plans to take out new credit over the next two years are:

- £586 – NET Credit card and personal loans
- £325 – NET Car lease and white goods.

How financial maturity is derived

Financial knowledge requires some mathematical ability but financial education only became a compulsory part of the secondary school curriculum in England from September 2014, so it's evident that vast swathes of the population have had no, or very little, financial education. Pupils in key stage 3, aged 11 to 14, get taught about the functions and use of money, the importance and practice of budgeting, and managing risk. Key stage 4 – for those aged 14 to 16 – covers income and expenditure, credit and debt, insurance, savings and pensions, financial products and services, and how public money is raised and spent. In addition, the mathematics curriculum is now charged with ensuring that 'all young people leave school with an understanding of the mathematical skills needed for personal finance.'

With increasing financial maturity high on the agenda of UK policy makers, we have explored the question of what it is currently looking like.

The wider state of financial maturity

If we deem those who answered incorrectly to have lower financial maturity, analysis of their debts shows that this group had a greater incidence of increasing their monthly credit commitments for car leasing and white goods in the last two years and are also marginally more likely to increase those credit commitments during the next two years.

The survey also found that three-quarters (75%) of adults would prefer to avoid debts and that just over half (52%) save money every month. However, 16% don't know the amount of their regular monthly expenses, and, alarmingly, one-in-twelve (8%) believe that, if they have savings interest of 1% per annum at a time that annual inflation is 2%, they would be able to buy more with their savings in a year's time.

Financial maturity is far from a given – and credit scoring needs to adapt to make a fair assessment of people's abilities of financial planning.

5. Conclusion: re-allocating credit to where it is due

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With half of the UK adult population holding (mostly unsecured) consumer credit debt, our research underlines just how much it has become the new norm to take out consumer credit as a means of support, especially so for young, working families at the lower end of the income spectrum.

The Bank of England has raised concerns about rising debt levels across consumer credit asset classes and our initial research has provided evidence that Affordability presents a significant problem that needs solutions. The £20bn of credit card and personal loan debt that is held by people who have had to dip into an unauthorised overdraft over the past twelve months is just one example of this. Similarly the financial services regulator, the Financial Conduct Authority (FCA) published an occasional paper on affordability.[12]

However, among the many worries in regard to financial access, we tend to overlook that there are currently also people who could afford to take out more credit, but are excluded from the system because they are freelancers or gig economy workers – people that can't be processed by the classic credit scoring system. In light of our findings that freelancers are among the most likely to plan to increase their credit commitments over the next two years, lenders are currently running the danger of missing out on opportunities to provide loans for creditworthy people without increasing the risk of defaults.

The misallocation trap

Hence, conventional credit scoring is leading to a misallocation on two fronts, credit given to those who can't afford it; and no credit given to those who could afford it but fall through the cracks of data limitations. While our research only touches upon UK consumers, other lending markets, such as the US, are showing signs of a similar misallocation of credit. The answer to consumer debt worries in the UK, as well as in other markets, is establishing meaningful credit scoring that takes into account an applicant's full picture. We need to really understand the context of the applicant and get the story behind the data.

Widening the scope and establishing meaningful ways to assess capability and character (as part of the 3C's) is the answer to address the current misallocation of credit in the system. This way, lenders will be able to expand their portfolios, growing the credit held by those people who have a good understanding of how additional financial commitments affect their overall finances. Our research indicates that up to £70bn of credit could be held by those people already in the UK, while 3.5m of them are making plans to take out more credit over the next two years.

[12] Financial Conduct Authority: Creditworthiness and affordability: common misunderstandings

Realistic – and accurate – technology

Aire is seeking to give lenders the tools to allocate credit as efficiently as possible without changing their lending criteria or increasing their current risk thresholds. Aire's technology provides lenders the ability to augment their credit scoring frameworks to identify the risks and benefits of potential borrowers by using its interactive virtual interviews to focus on the individual's affordability (i.e. capability) and character traits. It is particularly in-tune with the ongoing changes in the employment market and can easily determine credit scores for the rapidly increasing numbers of freelancers and self-employed.

The proof is in the pudding. Aire has researched and assessed over 400,000 people through its new credit scoring technique, helping establish strong parameters to expand lending to those ready for credit. Aire has already delivered new revenue for its partners through increasing credit approvals by up to 14% on average in the near prime segment of the population.

> Aire's technology provides lenders the ability to augment their credit scoring frameworks to identify the risks and benefits of potential borrowers

Aire is providing a new way for lenders to understand and credit score their loan applicants by providing reliability for lenders and fairness for customers. During Aire's journey so far, they have been working with financial institutions to evaluate credit and affordability solutions. They have also received full authorisation to provide credit references to the UK consumer credit market by the financial regulatory body - Financial Conduct Authority (FCA) - in 2016. In the past few years, the FCA has also been a major driver in encouraging lenders to adopt a wider stance on lending methods through its innovation program, and also enabling the lenders to rethink concepts of capacity and affordability to give out credit based on meaningful insight.

By working proactively with consumers, lenders and regulators worldwide, Aire believes it will be able to provide economic and credit intelligence to the market allowing them to fulfil their mission of enabling fair access to affordable finance to billions of people with a next generation credit scoring system.

Methodology Statement

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Methodology Statement

This research draws on findings from market research, which was commissioned by Aire, and carried out independently by research company Populus. Populus interviewed a random sample of 2,095 UK adults aged 18+ from its online panel between 22-23 May 2017. Surveys were conducted across the country and the results have been weighted to the profile of all adults. Populus is a founder member of the British Polling Council and abides by its rules. Further information at www.populus.co.uk.

Approach to polling:

- The PopulusLive panel has over 130,000 members. Populus pays £1 for every 5 mins of survey – a fair reward for fair consideration - and employs a number of online quality checks to ensure robustness of data, including:
- Time delay – applied to all questions to avoid respondents 'happy clicking'
- Machine fingerprinting – in addition to the use of date of birth and postcode validation is employed to ensure we eliminate any duplicated answers
- Logic inbuilt questions - 18 combinations of subtle check questions to ensure respondents are fully engaged during the online survey
- Surveys rendered to work on mobiles and tablets
- For omnibus surveys, Populus includes around 50% of respondents from its online panel and 50% from ROS (Random Online Sampling). ROS works by placing adverts on a wide variety of 150,000 different websites across the UK inviting people to take part in a survey. Respondents are then re-directed to the Populus landing page and screened in the usual way for survey eligibility. By including a mix of panel and Random Online Sampling, Populus ensures it achieves the best possible random sampling approach.

Quotas and weighting of data:

- Quotas are set on age, gender and region and the data weighted to the known profile of the United Kingdom using age, gender, and government office region, social grade, taken a foreign holiday in the last 3 years, tenure, and number of cars in the household and working status. Targets for quotas and weights are taken from the 2012 National Readership Survey, a random probability face-to-face survey conducted annually with 34,000 adults.

Statistical reliability and significance:

- The statistical reliability of data at 95% confidence interval is outlined below:

UK Sample	Sample Size	Margin of Error for response of 50%
Total	2095	2.1% +/-

A sample size of 2095 with a margin of error of +/-2.1% at a confidence interval of 95% suggests that if Populus were to conduct the survey 100 times again it would expect the data to fluctuate up or down by 2.1% on 95 of these occasions.

Definitions of the social grades referred to throughout this report:

A	Higher managerial, administrative and professional
B	Intermediate managerial, administrative and professional
C1	Supervisory, clerical and junior managerial, administrative and professional
C2	Skilled manual workers
D	Semi-skilled and unskilled manual workers
E	State pensioners, casual and lowest grade workers, unemployed with state benefits only

Credit where credit is due: scoring the right balance in today's economy

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