

# Agenda

## Advancing economics in business

### Too much debt? The role of credit card regulation

The financial crisis has highlighted the need to reduce overall indebtedness, including that on credit cards. Informed by insights from consumer behaviour, behavioural economics, and data from the credit card industry, this article highlights the need to examine the empirical facts carefully in designing credit card regulation

The UK government has long been concerned about the level of consumer indebtedness. Outstanding credit card borrowing stood at £54 billion in July 2009.<sup>1</sup> In the same month, the Department for Business, Innovation and Skills (BIS) published a White Paper which covered, among other topics, credit card practices that were thought to contribute to over-indebtedness, including the allocation of payments, minimum payments, unsolicited credit limit increases (UCLI) and risk-based re-pricing.<sup>2</sup> This was followed in October 2009 by a formal consultation document, which proposed a range of modifications to industry practice intended to address problems of over-indebtedness.<sup>3</sup> The UK Cards Association commissioned Oxera to conduct an economic impact assessment of BIS's proposals for credit card regulation.

This article investigates whether the proposals are likely to be effective in their ultimate goal of reducing over-indebtedness. The approach taken is to examine the empirical evidence on current practices, and use this to inform a discussion of the likely impact of BIS's proposals, in terms of both indebtedness and any unintended consequences. The discussion highlights the need for a thorough understanding of the underlying product when designing regulations for a particular market.

The discussion here is confined to two of the four areas of proposed credit card regulation raised in BIS's consultation: minimum payments and UCLI. The analysis provides an illustration of how to design consumer protection measures, assessing the need for them in practice, with insights from behavioural economics on consumer behaviour. A large dataset from credit card issuers (representing around 75% of the UK credit card market) is used to analyse existing consumer behaviour.<sup>4</sup>

#### Minimum payment requirement

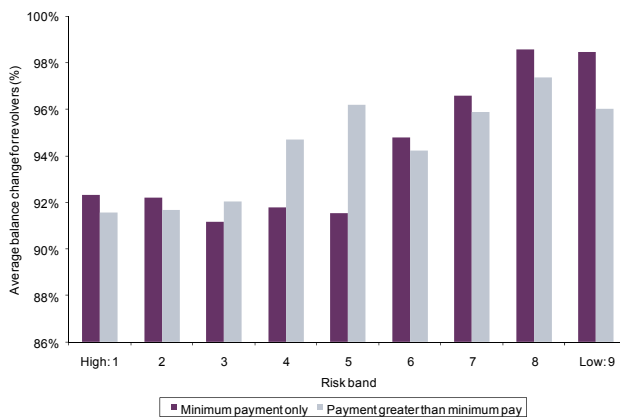
The minimum payment, which is typically set at 2–3% of a cardholder's balance each month, is in some ways an obvious target for a regulator seeking to reduce indebtedness. The perception is that this level of minimum payment barely covers the interest charges incurred by cardholders, leading to a level of debt which may take decades to pay off. BIS has calculated that it would take 29 years and three months to pay off a balance of £1,856 using a 2% minimum payment.<sup>5</sup> A cardholder on this payment schedule would, over that time, pay interest many times the size of the original debt.

While BIS's example is hypothetical, many cardholders do make the minimum payment in a given month, with 27% of accounts making a minimum payment at some point between July 2008 and June 2009; the remaining 73% either paid the full outstanding balance, or some amount less than the full balance but greater than the minimum.<sup>6</sup> Despite the relatively high number of cardholders making the minimum payment in a given month, the analysis of issuers' data showed that only around 3% of cardholders consistently made only the minimum payment over the entire year. This is consistent with most of those cardholders making the minimum payment doing so only occasionally, meaning that the build-up of interest charges is correspondingly less.

Furthermore, cardholders making the minimum payment do not necessarily reduce their balances any more slowly than those making more than the minimum payment. Figure 1 below shows the change in balance over the year ending Q2 2009 for cardholders making the minimum payment in every month of Q2 2008.<sup>7</sup> The data is organised by 'risk band', where risk is defined

This article is based on the Oxera report 'An Economic Assessment of BIS's Proposals for Credit Card Regulation', prepared for The UK Cards Association, January 15th 2010. Available at [www.oxera.com](http://www.oxera.com).

**Figure 1 Average percentage balance change for revolvers' from Q2 2008 to Q2 2009 by Q2 2008 payment status, by risk band**



Note: <sup>1</sup>Account holders who do not pay off their balance in full each month have a 'revolving balance' and are known as 'revolvers'.  
Source: Argus (2010), 'UK Credit Card Payments Study', January, slide 311.

by the expected probability that an account will be charged off or declared bankrupt over the following year. The figure shows that cardholders in all risk bands from 1 (high-risk) to 9 (low-risk) reduced balances over the year. Some groups (bands 3, 4 and 5) of cardholders paying the minimum in Q2 2008 had managed to pay off more of their balance over the following year compared with those making more than the minimum payment in Q2 2008. This suggests that while they were paying the minimum in Q2 2008, they subsequently substantially increased their payments (to the point where their balances one year later were actually lower than the balances of cardholders who had paid more than the minimum in Q2 2008). This somewhat surprising result shows that there is significant variability in payment behaviour, and suggests that the minimum payment mechanism is often a tool of financial flexibility.

Survey evidence suggests that those cardholders who make repeated minimum payments may have rational reasons for doing so. Cardholders with a balance transfer offer, for example, typically pay no interest and thus have no reason to pay more than the minimum payment for the duration of the offer.<sup>8</sup> This accounts for approximately 15% of cardholders who pay the minimum.

Other cardholders surveyed (around half of those who paid only the minimum) stated that they could not afford to pay more. While this suggests that these cardholders may have debt problems, such problems would not be the result of the minimum payment. In fact, raising the minimum payment, which is one of BIS's proposals, could actually exacerbate, rather than mitigate, the financial difficulties of these cardholders.

Approximately 40% of cardholders currently pay less than 5% of their outstanding balances, for example, and at least some of those might find it difficult to pay more.<sup>9</sup>

A useful insight from behavioural economics is that if minimum payment rates are raised, payments made by some cardholders may actually decline. Counterintuitively, a study based on 126,000 credit card statements found that higher minimum payments (3% versus 2%) are associated with an *increased* likelihood of making the minimum payment.<sup>10</sup> As the authors note, this finding is still under investigation, but suggests that the ramifications of changing the minimum payment extend well beyond those currently paying the minimum. It also suggests that introducing some form of 'recommended minimum' payment (one of BIS's proposals) could result in an anchoring effect, and could cause some cardholders currently paying amounts in excess of the recommendation to pay less. For example, if the minimum requirement is 2%, but a cardholder is currently paying 20% of their outstanding balance every month, introducing a recommended minimum payment of 10% may lead this cardholder to reduce their payments.

Overall, the empirical evidence suggests that, while cardholders frequently make minimum payments, very few do so consistently. This in turn would mean that very few would be accumulating the sort of interest payments that would result over 29 years, and so the contribution of minimum payments to indebtedness may be more modest than previously thought. Furthermore, while most consumers would have lower interest payments if they paid their debts off faster, raising minimum payments may not be effective in encouraging consumers to pay more. The behavioural economics results presented above suggest that further study is needed to design appropriate regulations.

## Unsolicited credit limit increases

Another practice that BIS targets as a potential source of indebtedness is UCLI, which account for the vast majority of all credit limit increases. The perception is that cardholders may be receiving credit limit increases that they neither need nor want and cannot afford, which results in them overspending and accumulating more debt than they would otherwise. The implicit assumption is that individuals use any offered increase in credit, regardless of affordability, due to biases such as myopia and impulsiveness.<sup>11</sup>

While consumer research has shown that there are undoubtedly consumers who are subject to these biases, empirical evidence shows that the consumers actually receiving credit limit increases are typically low-risk and mid-utilisation cardholders.<sup>12</sup> This can be

seen as a sensible strategy for issuers. Low-utilisation cardholders are unlikely to spend much of the increase, while high-utilisation cardholders are typically higher-risk. Empirical data suggests that card issuers are successful in targeting low-risk cardholders since cardholders' increased spending, on average, is just 5% in the six months following an increase in their limit. Furthermore, the data shows that there is no significant difference in the default rates of cardholders who received an increase in their limit compared with cardholders (in the proxy control group)<sup>13</sup> who did not receive a credit limit increase.

Interestingly, cardholders who *request* credit limit increases are also typically higher risk. This reflects inertia (ie, inaction) on the part of cardholders who can afford CLI, and 'adverse selection', which in this context means that cardholders requesting increases are most likely to be those who cannot afford them. Although issuers decline the majority of requested limit increases, cardholders granted limit increases following a request typically have higher default rates than those granted unsolicited increases (or those not given increases at all). Inertia and adverse selection mean that card issuers prefer to increase credit limits on an unsolicited basis to the portion of cardholders who are able to afford them.

In deciding how much credit to extend to a borrower, issuers need to strike a balance between giving limits which are very low, and therefore less profitable, and limits which are too high, and would therefore generate higher losses should cardholders default on payment. In the case of high-risk borrowers, the only way in practice to identify good payers relative to bad payers is to lend them a small amount initially and increase this limit if they reveal themselves to be good payers.

Since, in general, it is not profitable for issuers to have customers on low credit limits—and it is too risky to grant larger limits initially—issuers would be reluctant to offer credit cards to high-risk borrowers at all if they were not able to choose who should receive subsequent increases. One can easily imagine that, if denied access to the mainstream credit card product, high-risk (possibly vulnerable) customers may have to resort to alternative forms of credit which are often more expensive, such as home credit or pawnbrokers. Such forms of credit can carry annual percentage rates (APRs) that are far higher than those on credit cards. For example, a 2009 study by the UK Office of Fair Trading estimated that, for home credit, the APR varies between 150% and 500%, for pawnbroking 100%, and, for payday loans over 1,000% or 2,000% (given the

short-term nature of the borrowing).<sup>14</sup> Thus, restricting access to credit cards by high-risk groups may actually exacerbate over-indebtedness, contrary to BIS's original aim.

## A targeted approach

The financial crisis has highlighted the need to manage overall indebtedness, including that on credit cards. The purpose of this article is not to claim that credit card regulation is unnecessary or misguided, but instead to emphasise the need to examine the empirical evidence carefully so that the correct measures can be designed. Furthermore, it is necessary to have a good understanding of existing practices so that unintended consequences can be avoided.

It is clear, for example, that paying more than the minimum payment allows consumers to clear a debt faster. On the other hand, it is less clear that an increase in the minimum payment would result in an aggregate increase in payments. In addition, transitional arrangements would need to be considered, given the substantial number of cardholders paying less than 5% of their balances.

In the case of UCLI, it is not clear that there is any link with financial difficulty. While spending does increase modestly following credit limit increases, default rates do not. Furthermore, the potentially adverse consequences of banning UCLI may have negative effects on the cost and availability of credit to high-risk borrowers.

In order to design regulations that can help a minority of card users who are in financial difficulty—while protecting the positive features of credit cards for the majority—it may be possible to target interventions more precisely. Such initiatives could include a requirement for issuers to be proactive in contacting customers who repeatedly make minimum payments (as proposed by the industry) and possibly impose a higher repayment schedule on these cardholders. Targeted initiatives in financial education may be relevant as a means of directly addressing the behavioural biases (myopia, impulsiveness, etc) which lead some customers to use their cards excessively. Here, steps taken by regulators (such as the UK Financial Services Authority) to provide money guidance<sup>15</sup> and by the UK government (in its Financial Services Bill) to create a Consumer Financial Education Body<sup>16</sup> may be important in tackling over-indebtedness.

- <sup>1</sup> Department for Business, Innovation and Skills (2009), 'Review of the Regulation of Credit and Store Cards: A Consultation', Economic Impact Assessment, October, para 7.
- <sup>2</sup> HM Government (2009), 'A Better Deal for Consumers: Delivering Real Help Now and Change for the Future', presented to Parliament by the Secretary of State for Business, Innovation and Skills, July.
- <sup>3</sup> Department for Business, Innovation and Skills (2009), 'A Better Deal for Consumers, Review of the Regulation of Credit and Store Cards: A Consultation', October.
- <sup>4</sup> Argus Information and Advisory Services (2010), UK Cards Association Analytical Dataset, January.
- <sup>5</sup> Department for Business, Innovation and Skills (2009), 'Review of the Regulation of Credit and Store Cards: A Consultation', Economic Impact Assessment, October, para 195.
- <sup>6</sup> Argus (2010), 'UK Credit Card Payments Study', January, slide 267.
- <sup>7</sup> To define risk bands, Argus calculated unit loss rates for each issuer's risk and/or behaviour scores, with unit loss rates expressed as the expected probability that an account would charge off or declare bankruptcy during the subsequent 12 months. Argus assigned each account to one of nine loss rate categories. For example, for the lowest risk band, the standardised loss rate is 0–0.49%, while for the highest risk band it is 8.00% or higher.
- <sup>8</sup> GfK NOP survey, p. 31.
- <sup>9</sup> GfK NOP survey, p. 31.
- <sup>10</sup> Stewart, N., Matthews, W., Navarro Martinez, D. and Harris, A. (2009), 'A Model of Credit Card Repayment', The University of Warwick, December.
- <sup>11</sup> In this context, myopia refers to time-inconsistent preferences.
- <sup>12</sup> Argus Information and Advisory Services (2010), UK Cards Association Analytical Dataset, January, slide 74.
- <sup>13</sup> The proxy control group identifies cardholders who are similar across a range of metrics to those cardholders who received a credit limit increase but did not themselves receive an increase for at least three months.
- <sup>14</sup> Office of Fair Trading (2009), 'Review of High-cost Credit', Interim research report, December, pp. 16–23.
- <sup>15</sup> See, for example, FSA (2010), 'Moneymadeclear', [www.moneymadeclear.fsa.gov.uk](http://www.moneymadeclear.fsa.gov.uk).
- <sup>16</sup> Public bills before Parliament, 'Financial Services Bill', Section 6. Available at [www.parliament.uk](http://www.parliament.uk).

If you have any questions regarding the issues raised in this article, please contact the editor, Dr Gunnar Niels: tel +44 (0) 1865 253 000 or email [g\\_niels@oxera.com](mailto:g_niels@oxera.com)

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