OXERA

OXFORD ECONOMIC RESEARCH ASSOCIATES

REPORT PREPARED BY OXERA FOR

APACS/BBA/FLA/CML

ASSESSMENT OF THE ECONOMIC IMPACT OF THE PROPOSED EC CONSUMER CREDIT DIRECTIVE

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Executive Summary

OXERA has been commissioned by the Association for Payment Clearing Services, the British Bankers' Association, the Finance & Leasing Association, and the Council of Mortgage Lenders to assess the impact of the new (draft) EC Consumer Credit Directive (CCD) on credit for consumers and, more broadly, the UK economy. The study consists of three elements:

- a qualitative cost–benefit analysis of the Directive;
- a quantitative impact assessment of changes in the usage and costs of credit on the UK economy;
- a quantification of additional net welfare effects.

The second element was subcontracted to Oxford Economic Forecasting.

Key findings

A number of scenarios of increases in the costs of credit and reduction in the availability of credit were designed in order to model the impact of the Directive on consumer spending and GDP in the UK. The scenarios show that within two years of the implementation of the Directive:

- consumer spending could fall by around 0.6% (or around £4 billion/€5.8 billion);
- overall GDP could fall by around 0.2% (or around £2 billion/€2.9 billion);
- the welfare loss to consumers could be as high as £950m/€1,400m, with at least 2m consumers finding it difficult or impossible to obtain credit.

Background

The study was commissioned in light of the omission on the part of the European Commission to undertake a rigorous impact assessment of the Directive. In the time available it has only been possible to model the impact on the UK economy. However, the market for consumer credit in the UK is the largest in the EU, accounting for around one-third of the total European market for consumer credit. The consumer credit market in the UK is well developed, with a wide range of credit products, a high proportion of revolving credit, constant product innovation and a large number of credit providers.

Impact on credit users

The Directive, if implemented, would result in a serious impact on users of credit. This would arise through three main effects:

- a direct increase in the cost of providing credit. In particular, the enforced duty to advise and the requirement for credit providers to ensure that their customers re-sign their credit agreements would add directly to the costs of providing credit. Overall, there would be similar impacts across the product range. For example, by abolishing the present exemption of overdrafts from the scope of the Directive, the draft Directive would pose a real threat to the current flexibility enjoyed by users of overdraft arrangements. The costs imposed by the Directive would tend to be fixed per agreement, and so would impact most significantly on those credit agreements where the amount of credit drawn was smallest;

- a reduction in the availability of credit, particularly to those with low credit ratings. The responsible lending provisions are likely to increase the risk to credit

providers of lending to this group of consumers. This would have the most serious impact on those with low and irregular incomes and those in the sub-prime market;[1]

- a series of 'hassle factors', which would add indirectly to the cost of providing credit and may even preclude the provision of common forms of credit. These include, in particular, the obligations placed upon providers of overdrafts and the provision for a cooling-off period for credit arrangements agreed on retailers' premises. Other measures could reduce competition, potentially leading to higher prices for consumers in the long term.

Impact on the UK economy

The effects of the Directive would not be limited to the users or potential users of consumer credit, but would affect the whole UK economy. An increase in the cost of credit faced by consumers, and a reduction in the availability of credit to those with low credit ratings, would reduce the use of consumer credit, leading to lower consumer spending and a reduction in GDP.

A number of scenarios of increases in the costs of credit and a reduction in the availability of credit were designed in order to model the impact of the Directive on consumer spending and GDP in the UK. The scenarios show that consumer spending could fall by around 0.6% (or around £4 billion/€5.8 billion) and overall GDP by around 0.2% (or around £2 billion/€2.9 billion) within two years of the implementation of the Directive.[2]

Because the Directive would result in a higher cost of credit and a restriction in the availability of credit, there would be a significant welfare loss to consumers. All users of credit would end up paying a higher rate of interest in order to cover the costs that would result from the Directive. Also, a significant proportion of consumers could be affected by a reduction in the amount of credit that lenders would be prepared to make available to them—a conservative estimate indicates that at least 2 million UK consumers could be affected. This welfare loss could be as high as £900m/€1.3 billion.

Meeting its objectives

One of the objectives of the Directive is to increase consumer protection and to address the problem of overindebtedness. The effect of these provisions is likely to be a reduction in the availability of consumer credit to those with low credit ratings. However, studies show that the main causes of overindebtedness are unforeseeable and would not be avoided systematically by provisions such as responsible lending and duty to advise. The blunt measures in the Directive are unlikely to have an impact on the rate of

[1] Defined as the part of the market made up of those borrowers who have been refused credit more than once.

[2] This is based on the medium scenario consisting of an increase in the cost of unsecured consumer credit of 0.7 percentage points; a restriction in availability of unsecured consumer credit of 2.5%; an increase in the cost of secured credit that would be covered by the Directive, of 0.05 percentage points; and a restriction in the availability of secured credit that would be covered by the Directive, of 3%. In this scenario, it is assumed that 50% of secured credit would be covered by the Directive.

overindebtedness, but would have a significant impact on the ability of those with low or irregular income and consumers in the sub-prime market to obtain access to credit. The end result could be to exacerbate the existing problems of financial exclusion.

Moreover, a reduction in the availability of credit to consumers in the sub-prime market may lead to an increase in the use of credit from sources willing to operate outside of legal and regulatory regimes.

Conclusion

The analysis in this study shows that the Directive is unlikely to achieve its objectives. The economic and welfare-related effects of the Directive may be significantly larger than envisaged by the Commission; by contrast, its benefits are likely to be small.

Summary table

The table below presents a summary of the qualitative assessment of the impact of each relevant provision of the Directive. It is intended primarily as a guide to the main points in this report, and should be used in conjunction with the full analysis in the report.

Costs and benefits per provision

Provision of the CCD	Benefits	Costs
Data protection (Article 7): credit providers only permitted to use private customer data for the purpose of assessing ability to meet credit obligations	Consumers who do not wish their personal details to be used for marketing purposes already have the option to 'opt out' of receiving marketing material. The additional benefit of this provision is therefore likely to be small	Direct—more expensive and less effective marketing Indirect—less well-targeted marketing material may increase the chance that the recipients of such material do not value it, and some consumers will not be informed of certain new credit products, special offers or credit products from new firms
Central database (Article 8): Member States must set up a central credit-risk database(s) (or networks of databases) populated with, at minimum, negative data. Credit-risk data will be available on a cross-border basis	Cross-border access to credit reference data Entire EU market for consumer credit opened up Easier for foreign credit providers to enter local markets Increased competition	Direct—cost of setting up central database(s), or networks of databases, to access data from databases in other Member States
Responsible lending (Article 9). Credit providers must adhere to the principles of responsible lending when making lending decisions, basing such decisions on an assessment of a customer's ability to pay	May protect consumers from overcommitting due to unscrupulous management of personal finances. However, it is already not in the interest of credit providers to lend to consumers in this manner. Thus, the beneficial impact is likely to be small	Direct—system costs to record lending decision process; increased risk of litigation and irrecoverable legal costs (even if legal defence is successful) Behavioural—credit providers are likely to become less willing to lend to consumers in the sub-prime market or with lower credit rating
Exchange of information and duty to advise on the most appropriate credit product (Article 6). Credit providers must make a certain minimum set of information available to consumers during the course of negotiating and concluding a credit agreement. They must also advise on the most appropriate form of credit prior to the conclusion of a credit agreement	Some consumers may benefit from the compulsory advice. They may opt for a more appropriate form of credit to that which they originally intended to use, on the basis of advice received	Direct—depending on interpretation, the cost of staff and premises in order to carry out interviews with customers (especially for distance sales); inconvenience for consumers, not all of whom necessarily want advice from credit providers Behavioural—credit providers may restrict the range of credit products available; some may reorganise into separate monoline (or similar) businesses Competition—credit providers may only be willing to provide quotes after customer interviews; this makes getting quotes more difficult, increasing search costs and reducing competition

Costs and benefits per provision (cont'd)

Provision of the CCD	Benefits	Costs
Index-linking of interest rates (Article 14). Variable borrowing rates must be linked to an agreed base rate and can only be varied in line with that base rate	Lenders will be forced to change interest rates immediately in line with changes in the chosen reference rate	Direct—credit providers are unable to change margins in response to changes in consumer default risk; therefore this risk will be priced into borrowing rates up front, leading to a higher cost of borrowing, especially for consumers who during the course of a credit agreement prove to be low-risk Inability to change margin in accordance with customer default risk conflicts with the new Basel Accord Competition—the inability to reduce rates on all credit agreements except new ones without getting the agreements re-signed suppresses competition between credit providers
Restrictions on pricing/unfair contract terms (Article 15). Charges and fees must be held constant throughout the life of a credit agreement	Similar to 'index-linking' above	Direct—credit providers are forced to hold charges and fees constant in nominal terms. Therefore they are unable to raise charges to reflect increases in their own costs or reduce them to reflect efficiency increases. Expected future cost increases would be factored into the level of charges and fees up front, increasing the cost of credit Competition—the inability to pass on cost reductions that reflect efficiency improvements, except new ones, without getting the agreements re-signed suppresses competition between credit providers.
Re-signing of credit agreements (Articles 10, 15 and 34). Changes to credit limits and interest rates cannot be made without customers re-signing the credit agreement	Possible small benefit from increased customer awareness of terms of credit agreements—may increase competition marginally	Direct—one-off costs of setting up large temporary operations to handle postage and processing of all re-signed agreements within two years of implementation of the CCD Ongoing costs of postage and processing to deal with re-signed agreements whenever terms and conditions of credit agreements changed Inconvenience of additional paperwork for consumers, especially where changes in conditions of credit agreement are either legally sanctioned or in the best interests of the consumer (ie, introduction of Chip/PIN technology on credit cards)

Costs and benefits per provision (cont'd)

Provision of the CCD	Benefits	Costs
Re-signing of credit agreements (Articles 10,15, and 34)	–	Behaviour—increased cost of changes to interest rates and credit limits means that changes would be made less often. Credit providers using prudent 'start low and then grow' approach to lending would be likely to provide higher initial credit limits to customers in order to reduce need for future increases. This conflicts with responsible lending provisions
Joint and several liability (Article 19). The present joint and several liability provisions of Section 75 of the Consumer Credit Act 1974 would no longer hold for credit-card transactions	Removes joint and several liability for credit-card issuers. The cost savings for issuers are likely to be small. Furthermore, any benefit for issuers is a direct cost to the credit-card holder. They will no longer benefit from the joint and several liability protection for credit cards	Direct—no significant effects. Behaviour—credit-card issuers may 'voluntarily' provide joint and several liability-type cover (minus cover for contingent losses) to consumers in order to differentiate their credit card from credit cards offered by other issuers
Definition of credit intermediaries to include affinity partners (Article 2). Affinity partners, such as charities, universities and football clubs, would be considered credit intermediaries and be required to hold a copy of each credit agreement with which they were affiliated	–	Direct—costs for affinity partners to be registered and to receive and store copies of all credit agreements made with credit provider (typically credit-card or personal-loan provider). Extra costs involved would lead to a reduction in the amount of money available for charitable purposes.
Right to withdrawal and cooling-off (Article 11). The cooling-off period is extended and will now also apply to credit agreements signed and negotiated on business premises rather than just to credit agreements signed off business premises	Marginal reduction in default if some consumers during the course of cooling-off period decide to withdraw from credit agreements that would have caused them to default	Direct—no direct compliance costs to credit providers, except unfavourable reaction from consumers Behaviour—retailers unwilling to release goods purchased under credit agreements until the cooling-off period has elapsed. This is likely to lead to the elimination of the provision of credit by retailers at the point of sale Consumers likely to use other forms of credit (ie, overdrafts, credit cards and mortgages) so that they will not have to wait until the cooling-off period expires before they can take delivery of the goods
Early repayment provisions (Article 16). Indemnities to be paid by the consumer in case of early repayment must be calculated according to 'actuarial principles'	Increase in early repayment rebates for customers using credit providers that calculate rebates with the 'Rule of 78' where this is used on high-value longer-term loans	Direct—-systems changes (eg, accounting systems) for credit providers that currently use the 'Rule of 78' to calculate repayment penalties on the basis of actual cost and as a method for accounting

Provision of the CCD	Benefits	Costs
Introduction of borrowing rate and total lending rate (Articles 13 and 14). Credit providers must present the borrowing rate and the total lending rate to potential customers in the course of negotiating and concluding a credit agreement	Increase in the amount of price information available to consumers	Direct—systems changes in order to calculate the new rates; changes to marketing and contract information in order to display the new rates Indirect—confusion among consumers who already often have difficulty in understanding the present annual percentage rate (APR). This could reduce competitive pressure to the extent that consumers are unable to understand the information presented to them sufficiently well to be able to make comparisons.
Ban on unsolicited negotiation of agreements outside of business premises	Assuming that the existing definition of 'business premises' is maintained, this is unlikely to represent any significant change to current rules	There are unlikely to be any significant effects

Contents

1. Introduction

1.1 Remit and objectives

OXERA has been commissioned by the Association for Payment Clearing Services (APACS), the British Bankers' Association (BBA), the Finance & Leasing Association (FLA) and the Council of Mortgage Lenders (CML) to assess the impact of the (draft) new EC Consumer Credit Directive[3] (CCD) on consumers of credit and, more broadly, the UK economy. The study consists of three elements: a qualitative cost–benefit analysis (CBA) of the CCD; a quantitative impact assessment of changes in the usage and costs of credit on the UK economy; and a quantification of additional net welfare effects. The second element was subcontracted to Oxford Economic Forecasting (OEF).

OXERA is an independent economic consultancy offering advice to firms, regulators and governments on all aspects of regulation and competition policy.

The CCD proposes a series of changes to the regulation of consumer credit in the EU. In contrast to the 1987 Directive on Consumer Credit, the new Directive will extend the regulation of consumer credit products from 'hire-purchase' agreements and 'instalment credit' to all forms of consumer credit, except that used for the purchase or renovation of property (first mortgages) or that provided occasionally by an employer to its employees (eg, salary advances). The new CCD changes the rights and obligations of both consumers and credit providers, and the rules on transparency and provision of information.

According to the European Commission, the aim is:

> to pave the way for a more transparent market, a more effective market and to offer such a degree of protection for consumers that free movement of offers of credit can occur under the best possible conditions both for those who offer credit and those who require it.[4]

The new Directive seeks to achieve 'maximum harmonisation', such that individual Member States cannot introduce their own additional standards. This contrasts with the present Directive, which sets a series of minimum standards.

The Commission's existing assessment of the Directive concludes that the impact on the cost of credit will be broadly neutral. However, the assessment upon which these findings were based lacks analysis of any of the costs and benefits of the Directive. The rules are intended to benefit consumers by giving them more protection, but these rules are also likely to entail considerable costs that will ultimately be passed on to consumers. Introducing regulation that results in higher direct costs for the credit providers reduces

[3] Commission of the European Communities (2002), 'Proposal for a Directive of the European Parliament and of the Council of the EU on the harmonisation of the laws, regulations and administrative provisions of the Member States concerning credit for consumers', 2002/0222.
[4] Ibid.

the level of supply at any given price. Furthermore, principles such as responsible lending and restrictions on pricing are likely to change the behaviour of credit providers and consumers, and are likely to result in a further reduction in the supply of credit.

This study assesses the impact of the CCD on the UK economy. The approach taken is to assess whether the Directive is effective, in terms of being able to achieve its objectives, and whether it is efficient in the way these objectives may be achieved.

1.2 Methodology

Sections 2 and 3 of this study give a qualitative assessment of the incremental costs and benefits of the provisions in the CCD that are likely to have the most impact in the UK. Two broad categories of cost can be distinguished: direct compliance costs and behavioural responses of credit providers and consumers. Other welfare costs are the impact on competition and on consumer choice.

- *Direct costs*—these consist mainly of compliance costs (ie, the value of the extra resources, including time, that would be used by firms and/or individuals to comply with a regulatory proposal). Economic theory suggests that incremental costs should be used—ie, costs that are not part of good business practice, and are not expected to become so. They will reduce the efficient operation of the credit markets, and can be considered a deadweight cost for the credit providers, and, through them, for the economy as a whole.

  Applying the concept of 'incremental compliance costs' to the CCD means that the elements in the Directive need to be compared with the existing regulatory framework (in particular, the UK Consumer Credit Act 1974, CCA) and current business practice. The requirements in the Directive that go beyond what is required in the existing regulatory framework and what is considered good business practice will result in incremental compliance costs.

  A further distinction can be made between one-off and ongoing compliance costs. One-off costs for companies will include what they have to do to start complying with the new regime. The ongoing compliance costs for companies will include the costs of continuing to comply with the new regime.

- *Behavioural response of credit suppliers and consumers*—the CCD contains provisions that are likely to change the behaviour and incentives of credit providers and consumers. These changes in behaviour may directly affect the supply and demand for credit, and may also result in higher costs, thereby indirectly affecting the usage of credit.

The impact of the CCD on consumer welfare is estimated by modelling a number of scenarios that are based on conservative estimates of the impact of the CCD on credit providers. The direct costs caused by the CCD would be passed on to consumers in the form of an increase in the cost of credit. Additionally, a reduction in the willingness of credit providers to supply credit would lead to a lowering in the overall availability of credit. These changes in the supply of credit would result in a welfare loss, as quantified in section 4. Additionally, the reduction in the availability of credit would have an impact on the real economy. This is modelled using the OEF macroeconomic model of the UK economy.

The CBA is supported by different sources of information, including:

- *in-depth industry interviews*—interviews were conducted with a number of credit providers, and focused on current business practices, the impact of the different provisions in the CCD on the behaviour of credit providers, and the identification of compliance costs;

- *evidence from abroad*—evidence on consumer credit regulation and credit providers' practices in Belgium is used to give an indication of the likely interpretation of certain provisions in the CCD. The Belgian law on consumer credit contains provisions on responsible lending and duty to advise;

- *existing regulations on consumer credit*—the provisions in the Directive are compared with the existing framework of regulation on consumer credit in the UK.

Section 2 presents a broad overview of the main costs and benefits of the CCD. Section 3 assesses the impact of the Directive on consumption and GDP through the use of the OEF macroeconomic model. A number of scenarios are modelled. Furthermore, the additional net welfare effects of a reduction in credit are quantified. Section 4 assesses in more detail the costs and benefits of those provisions of the CCD that are most likely to have a significant impact on the UK economy. The analysis shows that the CCD is likely to result in an increase in the costs of credit and a reduction in the usage of credit.

2. Overview of Main Impacts

The European Commission expects the impact of the CCD to be cost-neutral and to contribute to a number of objectives, including the creation of a single European market for consumer credit, increased consumer protection and greater competition within the market for consumer credit. The Commission argues that the increase in consumer protection (through provisions such as responsible lending and duty to advise) is likely to result in lower default rates and subsequently in lower interest rates. Additionally, it argues that the implementation of the Directive on the basis of maximum harmonisation will 'simplify' the rules faced by credit providers in Europe, and that consumers, due to the extra protection extended to them by the CCD, will be more willing to use credit, thereby increasing market opportunities (in particular, cross-border opportunities) for credit providers and offsetting the additional burdens imposed on them.

However, the European Commission has not assessed the specific costs and benefits of the CCD. The impact assessment undertaken by the Commission does not reflect the fact that regulation will result in costs for credit providers and that ultimately these will have to be borne by consumers. For instance, it describes the impact of the 'duty to advise' as 'more of a change of approach than a quantifiable cost'.[5] This shows a misunderstanding of the real effects of such a measure, which, as will be shown in this study, are likely to be substantial. The CCD will only be in the interest of consumers if the incremental costs are outweighed by benefits.

This section looks at the market for credit in the UK and the products available to consumers of credit. It goes on to summarise the main impacts of the CCD according to the direct costs and behavioural/competition effects. In addition, the likelihood of the Directive achieving its policy aims is discussed, drawing upon a range of evidence about the causes of overindebtedness. Section 4 analyses qualitatively in greater detail the impact of each of the most significant articles of the Directive.

2.1 Market for consumer credit

The UK consumer credit market accounts for over 30% of credit granted in the EU.[6] At the end of 2002, UK consumer credit outstandings were valued at £157.4 billion. The market is highly developed with a wide range of credit products and a large number of suppliers of each type of product. Table 2.1 shows a breakdown of the UK credit market at the start of 2003. Within each of the credit products shown in the table, there is typically a range of product types—in recent years, financial liberalisation has contributed to an increase in the number of products available within each category. The most significant of these has been the development of, and growth in, flexible mortgages.

[5] Commission of the European Communities (2002), 'Proposal for a Consumer Credit Directive', p. 86.
[6] Figure derived from data available from the European Central Bank and the Bank of England.

Table 2.1: Value of outstanding credit owed by individuals in the UK, February 2003

Type of credit	Value of credit outstanding in 2003 (£ billion)	Average borrowing rate (%)
Total credit secured against property	679	5.25
Total credit not secured against property	(157)	–
Credit card	47	14.14
Overdraft[1]	8	9.49
Other forms of consumer credit[2]	102	9.23
Total	**836**	**–**

Notes: [1] 2001 quantity figure from the BBA. [2] Quantity figure derived from total credit not secured against property and total overdraft lending.
Sources: Overdraft figure taken from BBA, 'Annual Abstract of Statistics, 2002'. All other figures taken from Bank of England.

2.1.1 Mortgages

The mortgage market in the UK is highly developed. As a country in which the level of home ownership is among the highest in the world, the efficient functioning of the mortgage market is of particular importance. In the vast majority of cases, mortgages represent the single largest amount of credit taken out by consumers. Although primarily used for the purchase of fixed property, mortgages are increasingly being used to fund a wider range of purchases.

Mortgages vary according to the treatment of the interest rate and the flexibility of payment schedules. In the last 20 years, the range of available products has proliferated from the old-style inflexible repayment mortgages with 'managed' interest rates to a wide range of interest and repayment arrangements.

The main types of interest-rate arrangement are:

- managed interest rates—the interest rate can be changed by the mortgage provider;
- fixed interest rates—fixed either for an agreed period of time before reverting to a managed rate, or fixed during the lifetime of the mortgage agreement;
- index-tracking interest rates—ie, the interest rate varies only in line with an agreed index, commonly the Bank of England base rate;
- capped interest rates—ie, the interest rate is variable, but is guaranteed not to increase above a specified level; and
- discounted interest rates—the interest rate is set at a low level for an introductory period which can be as long as five years, before reverting to the managed rate. Early exit penalties commonly exist under such arrangements.

In combination with the different types of rates, several different arrangements exist with respect to the ability of consumers to repay their mortgages:

- standard repayment mortgage—the mortgage is taken out only against the value of the fixed property being purchased. Repayments are set upon conclusion of the agreement and vary only with the rate of interest where this is variable;

- flexible mortgages—mortgages can be flexible in a number of ways, thereby providing consumers the ability (subject to the specific mortgage credit agreement) to vary the level of repayments, make one-off repayments, vary the frequency of repayments, take repayment 'holidays', and withdraw equity for non-fixed property purchases (cash reserve);

- 'advanced' mortgages—these agreements combine the use of a range of banking facilities alongside the mortgage itself. For instance, money held in savings accounts can be offset against the outstanding value of the mortgage and credit can be taken out against the value of the existing property equity in the form of loans and credit cards.

In addition, it is possible to secure consumer loans against property, for instance through loan consolidation products. Such products effectively convert debt used to purchase non-property-related goods into mortgage debt.

The number of providers of mortgage credit in the UK is very large and in recent years Internet-based mortgage providers have entered the market.

2.1.2 Credit cards

Credit cards are a highly flexible form of credit whereby consumers can pay for goods of an unspecified value up to an agreed limit (credit limit). Credit-card debt is billed and can be paid off monthly or allowed to roll over to the next month. However, a minimum monthly payment must be made, otherwise an overdue payment is recorded. The variety of credit-card schemes within the UK credit-card market is very wide, encompassing various rates of interest, varying interest-free periods, varying credit limits, insurance and cash-back schemes.

The UK consumer credit-card market is characterised by a large number of suppliers. There are over 60 issuers of credit cards (including foreign banks, building societies and supermarkets, as well as high-street banks and finance providers), and more than 1,500 differently branded credit cards in the UK.[7] A number of US credit-card providers entered the UK market during the 1990s. The number of merchant acquirers has also increased significantly since the end of the 1980s, when Barclays was the only Visa card acquirer in Great Britain, and the Joint Credit Card Company (owned by four banks) was the only Eurocard/MasterCard acquirer. Today, there are nine acquirers for the major credit- and debit-card schemes (Visa, MasterCard and Switch).

2.1.3 Store cards

Store cards are plastic payment cards that can be used to pay for merchandise at one particular retailer or a group of retailers. There are two types of cards: option and budget. The credit limit of budget cards is typically defined as a multiple of how much the

[7] Credit Card Research Group (2002), 'Flexible Friends—Attitudes to Credit Cards in the UK', November.

cardholder wishes to pay each month. Option cards work more like credit cards and allow cardholders to spread the cost of their purchases, which normally includes an interest-free period. In a minority of cases, retailers manage and finance their own store-card scheme. However, it is more common for retailers to contract out the management of their store-card scheme to a finance provider on a third-party basis.

2.1.4 Overdrafts

An overdraft is a loan made to a customer with a cheque/deposit account at a bank or building society, in which the account is allowed to go into debit, usually up to a specified limit (the overdraft limit). Overdraft and lines of credit represent the smallest sector within the unsecured retail credit market (4.3% of the market), but are used by a large proportion of consumers and are a highly flexible form of credit. Account holders can remain in overdraft, and change the amount of the overdraft at their own discretion within the agreed overdraft limit. Overdrafts and lines of credit grew by a compound annual rate of 5.5% during the period 1995–99. In 1999, the credit per capita for overdrafts/lines of credit was £91.[8]

2.1.5 Fixed-term loans

Fixed-term loans are specified sums of money lent by a financial institution, for a specified time, at a specified rate of interest (annual percentage rate, APR). Typically, along with the value of the loan and the APR, a payment schedule is agreed during which agreed instalments are to be repaid. This form of credit is typically used on a purchase-specific basis, for instance to fund the purchase of electrical goods or a car. Within Europe, personal loans account for 49% of the market for unsecured credit. From 1995 to 1999, personal loans experienced the highest level of growth in the UK retail lending industry, increasing at a compound annual rate of 22.2%. By 1999, the level of balances outstanding had risen to £59 billion.[9]

In terms of market share, the top three companies in the UK personal unsecured loan market are Barclays, Lloyds TSB, and HSBC. In 2001, Barclays had a market share of 10%, but the rest of the retail lending market is relatively fragmented, illustrating the high level of competition that exists. In recent years, monoline/specialist credit-card providers, such as MBNA and Capital One, have entered the market for unsecured personal loans.

2.1.6 Hire purchase

Hire-purchase schemes are those whereby a finance house buys goods from a retailer/dealer and then hires them out to the customer. The customer not only hires the goods but also has an option to purchase them. Effectively, the credit provided to the customer is secured against the value of the goods purchased. Typically, there are three parties involved in hire purchase: the customer who buys the goods, the retailer who sells the goods, and the finance company who provides the finance and takes title of the goods

[8] Datamonitor (2001), 'European Retail Lending 2001', DMFS1310, pp. 464–6.
[9] Ibid, pp. 86 and 434.

from the retailer. Hence, while the customer concludes the credit agreement with a representative of the retailer, the actual provider of the loan is generally a separate bank or finance company. Hire-purchase agreements are very popular in the new and used car markets. In 2002, over 484,000 new private cars were financed using this method.[10]

Similar to hire-purchase agreements are conditional-sale agreements and personal-contract plans. Under conditional-sale agreements, goods are provided under credit such that the consumer pays for the goods in instalments and only legally owns those goods once the final instalment has been paid. Under personal-contract purchase plans, goods are provided for an agreed length of time, during which the consumer pays instalments which consist of the difference between the purchase value of the goods and the estimated value at the end of the agreed term and interest. At the end of the agreed term of the instalments, the consumer has the option of purchasing the goods at a guaranteed price (ie, a 'balloon payment').

This section has given an overview of the wide range of products available in such a well-developed credit market as exists at present in the UK. As the single largest credit market in Europe, it shows a number of essential characteristics:

- a wide variety and choice of credit products;
- continuing product innovation; and
- a large amount of flexible and revolving credit.

Owing to the size of the UK credit market, the Directive will have a disproportionate effect in the UK. Furthermore, because of the highly developed state of the UK credit market, a careful consideration of the effects within that market may also apply in future to other, less well-developed credit markets within the EU.

2.2 Impact assessment of the Directive: costs and benefits

This section presents, in qualitative terms, a broad overview of the main costs and possible benefits of the Directive. The most significant articles in the Directive, in terms of their potential impact on the credit market, are:

- Article 7: data protection;
- Article 8: central databases;
- Article 9: responsible lending;
- Article 6: exchange of information and duty to advise;
- Article 14: index-linking of interest rates;
- Article 15: restrictions on pricing/unfair contract terms;
- Articles 10, 15 and 34: re-signing of credit agreements;
- Article 19: joint and several liability;

[10] FLA Annual Statistics 2003.

- Article 2: definition of credit intermediaries to include affinity partners;
- Article 11: right of withdrawal and cooling-off period;
- Article 16: early repayment provisions;
- Articles 13 and 14: introduction of the 'borrowing rate' and the 'total lending rate'; and
- Article 5: ban on unsolicited negotiation of credit agreements outside of business premises.

The costs and benefits per provision are analysed in more detail in section 4.

- *Direct costs*—the Directive is likely to impose considerable direct costs on credit providers, the most significant of which are likely to arise from the 'duty to advise', and the 're-signing of credit agreements':

  - under the duty to advise, credit providers will have to put in place provisions for explaining the advantages and disadvantages of the range of credit products they offer, as well as advising consumers on the most appropriate form of credit for the purpose for which the credit is required. This will require both the production of extra information material, and more importantly, the need for significant direct (qualified) staff input to find out the purpose of the credit applied for, and then come to a judgement about the most appropriate form of credit. This contrasts with the approach taken in the UK, which is to oblige credit providers to make available sufficient information for consumers to make informed decisions;

  - the re-signing of credit agreements will cause a series of costs. The requirement to have a customer re-sign their credit agreement in the event that the terms of the agreement changed would require credit providers to pay for an increased level of correspondence with customers, increase the number of staff handling customer queries and processing re-signed agreements, and make provision for chasing up customers who did not return their re-signed credit agreements. Furthermore, because of low postal response rates, it is likely that few consumers would reply to correspondence requiring their signature. In the event that the required formalities were not completed, there could be further significant administrative and legal complications, and the possible withdrawal of credit facilities, causing costs to credit providers and inconvenience to consumers. Given that the vast majority of consumers are able to cope with their debt obligations, the requirement to re-sign credit agreements would at best only benefit a small group of consumers, if indeed any;

  - the current draft of the Directive adds significantly to the scope of the present Directive by removing the exemption on overdrafts from the coverage of the (present) Directive. This represents a major addition to the regulation of overdrafts in the UK and would put at risk the ability of credit providers to provide overdraft facilities on the flexible but prudent basis that is the practice at present. An example of the kind of practice that would be made significantly more difficult would be the provision of 'tacit overdrafts': if a customer overdrew on their account, their bank may be

willing to automatically provide an overdraft (hence the use of the term 'tacit'), provided that the bank's assessment of the customer's behaviour record and all-round creditworthiness was sufficiently favourable. This flexible practice benefits consumers, in that credit can be made easily and quickly available by banks on a prudent basis (ie, subject to assessment). By obliging banks either to withdraw the credit facility after three months or to require the consumer to re-sign their credit agreement (Article 25), the Directive would make the provision of credit on such flexible terms significantly more difficult.

- *Behavioural response*—an assessment of the likely behavioural response of credit providers requires a greater insight into the incentive structure of the firms and people affected by the regulation (ie, credit providers and consumers) than that shown in the Directive. For example:

  - the main behavioural response from the providers of credit would be a likely reduction in their willingness to provide credit to consumers with low credit ratings (ie, those in the sub-prime market and with low or irregular income). Because Article 9 (responsible lending) places the burden of proof on credit providers to prove positively that they undertook responsible lending practices, credit providers would need to assess the risk of appearing to lend irresponsibly. The Directive lacks a balance between the obligations imposed on lenders and borrowers. In light of the concentration of the risk of litigation under Article 9 among those with low credit ratings, credit providers would be likely to reduce the amount of lending that they were willing to make to customers in this group, which is the opposite of what the Directive seeks to achieve;

  - Articles 10, 15 and 34 would require credit providers to get their customers to re-sign their credit agreement in the case that the credit limit on their overdraft or credit card was increased (or more generally, if the terms of their credit agreements changed). Credit-limit changes occur very frequently in the UK and are an integral part of credit providers' responsible lending policy. Most credit providers have adopted a 'start low, and then grow' policy towards credit limits. Customers are initially given a low credit limit, which will subsequently be increased if the credit scoring improves. The requirement to re-sign credit agreements in case of credit-limit increases would give credit providers an incentive to reduce the frequency of these increases. Such a cost-reduction measure could be achieved by giving consumers a higher credit limit initially, so that fewer credit-limit increases are needed after the overdraft or credit-card agreement has been signed. This is likely to conflict with the principle of responsible lending. In other words, the regulation effectively imposes extra costs on the measures that credit providers have developed themselves as part of their overall responsible lending policy. Such adverse consequences ought to be avoided;

  - the duty to advise would place an increasingly onerous burden on credit providers as the range of credit products they offer increases. The

obligation created by the Article 6 could only be discharged by the creditor making a detailed enquiry into the personal affairs of the customer. This process may be perceived as unacceptably intrusive by consumers. Furthermore, it may be impracticable to undertake such enquiries for credit provided at the point of sale, offered remotely or via direct marketing channels. The response of (diversified) credit providers could be to reduce the range of consumer credit products they offer and, in future, to introduce fewer new credit products to the market, as the effective cost of doing so increases. Both of these measures would reduce consumer choice.

- *Effects on competition*—the CCD is likely to increase the scale and complexity of the structures required to ensure compliance with regulations. These structures are often extra to the core requirements of carrying out the business of providing credit in a competitive market. As such, these extra business costs would require all credit providers to put in place more complex and more expensive business processes. These extra costs may result in increased barriers to entry, as potential entrants to the market may face high start-up costs. In turn, this may result in a below-potential level of competition in the market.

  The requirement to vary the borrowing rate only in line with an agreed base rate or index, or else to incur the expense of getting customers to re-sign their credit agreements, may (depending upon the exact interpretation) prevent credit providers from reducing the borrowing rate in response to increased competition on all existing contracts. If this were the case then competition-related reductions in the borrowing rate could still take place where credit providers were competing for new agreements. However, these form only a small proportion of the stock of existing agreements. The CCD could therefore suppress an important mechanism through which the benefits of market competition are passed on to consumers, namely the price mechanism.

  Furthermore, the requirement to vary the base rate only in line with an agreed base rate would conflict with the principles of the new Basel Accord, under which finance companies will be obliged to hold more capital for loans to borrowers with lower credit ratings than for borrowers with higher credit ratings. If a customer became more risky, the lender would have to hold more capital for any loans outstanding, but would be unable to charge the customer a higher rate of interest.

- *Efficiency*—regulation needs to be effective, in terms of being able to achieve its objectives, as well as efficient, in terms of being able to achieve its objectives in a way that maximises benefits, subject to the resultant direct costs and any costs that result from the creation of perverse incentives on the part of market participants. In a number of cases, although the objective behind a certain provision is likely to be achieved, there may be more efficient ways of achieving it.

  – The duty to advise would oblige credit providers to provide advice to all consumers when negotiating and concluding a credit agreement for any form of consumer credit. In the UK, consumers have the choice to take varying types of advice/information from credit providers during the process of negotiating a mortgage. Full advice on other credit products is not provided by credit providers as a matter of course, although consumers

are able to consult with financial advisers if they wish. The advice/information on mortgages ranges from basic single-product information (borrowing rates, repayment schedule, terms and conditions, etc) through to full advice on the most suitable type of mortgage to take. However, only a certain proportion of consumers choose the 'full advice' route, and the provision of advice tends to relate to high-value mortgages. This indicates that not all consumers want advice from their credit provider. Hence, the result of the duty to advise would be that expensive resources were devoted to providing advice that not all consumers actually valued. Instead, a more efficient regulation would be to give consumers the option of receiving advice, and then, in such cases, to make the provision of advice mandatory.

– Another major example of where the CCD is inefficient is Article 7 on data retention, in combination with Article 8 on the central database. The CCD states that personal customer data can only be used to assess a customer's creditworthiness, and data obtained from credit reference agencies (CRAs) must be destroyed as soon as the credit agreement, to which it relates, has been concluded. While the Commission has clarified that this is not the intention of the Directive, as the Directive stands at present the wording could be interpreted as introducing such requirements. On the one hand, such a provision may achieve its objective in terms of protecting customers against undesired usage of their data; on the other, it is likely to result in some negative effects as well. In particular, it would make cross-selling activities more difficult. Such activities are not harmful to consumers—indeed, they benefit those consumers who are made aware of a product and choose to use it (thereby reducing the consumers' search costs). Furthermore, the extent of any disbenefit to consumers from receiving unwanted marketing material can only be minimised by targeting marketing campaigns at those consumers who are likely to be the most receptive to them. This can only be achieved if credit providers are able to use personal customer information to target their marketing activities.

  Further to problems with the use of data in marketing, the Directive would prevent credit providers from using such data for the prevention of fraud and money laundering. This would clearly be an undesirable outcome—the Directive effectively fails to recognise that personal data collected in the course of negotiating and concluding a credit agreement can be used for a large number of additional legitimate purposes.

  The requirement to destroy CRA data once it has been used would prevent the use of that data by credit providers to assess the quality and validity of their lending decisions. Over the long run, this could result in lower-quality lending decisions (due to the fact that credit providers would not be able to assess their past lending decisions as well as they can at present).

  In terms of the objective of Article 7, the same outcome can be achieved by a less stringent rule: simply by giving customers the right to consent to, or opt out of, having their personal data used for marketing purposes

and/or to opt out of receiving marketing material altogether. The use of data in this way is already governed by the Data Protection Directive.[11]

– The provision for a 14-day cooling-off period on all credit agreements (Article 11) would cause the vast majority of consumers significant inconvenience when purchasing goods on credit, as most retailers would be unwilling to release the goods purchased until the cooling-off period had elapsed. This is because the consumer would be able to return the goods and 'cancel' the credit agreement, causing the retailer to accept the return of used goods which are often significantly devalued (eg, white goods, cars, etc). Where the customer takes out a hire-purchase agreement, the title of the goods is with the finance company, which would therefore not only have to settle the loan agreement, but also arrange for disposal of the goods. Additionally, Article 11 may cause distortions in the market for credit as consumers would switch away from purchase-specific forms of credit to other forms of existing credit, such as credit cards, store cards and overdrafts, in order to avoid the cooling-off period so that they can take delivery of the goods immediately. It is therefore unlikely that Article 11 is an efficient way of enhancing consumer protection.

2.3 Creation of a single European market for consumer credit

One of the objectives of the CCD is to contribute to the creation of a single market for consumer credit. In terms of this objective, the CCD would put in place useful regulations on the availability of credit reference data on a cross-border basis. Article 8 would make it obligatory for each Member State to have in place a central credit reference database or network of databases. Under such a system, it would be possible for a credit provider in one Member State to access the credit reference data of a potential customer with a credit record in another Member State. This would give rise to a series of benefits.

- The availability of credit reference data in a standard form across all Member States would reduce asymmetric information, particularly in the case of applications for credit from new customers where a credit provider has no payment/behavioural records in-house. This, in turn, would reduce the chance that credit providers lend to customers with a significant risk of default (or who have already defaulted). Ultimately, this could lead to a reduction in the amount of credit lent to 'excessively risky' consumers and a decrease in the rate of default.

- Cross-border availability of credit reference data would make entry into markets by foreign companies easier, as they would be able to access credit reference data on an equal basis to local credit providers. This could increase competition in the market for consumer credit in all Member States.

[11] EC Data Protection Directive (95/46/EC).

- An additional beneficial effect is that consumers from one Member State who have sufficiently good risk profiles would no longer be denied access to credit in other Member States, as occurs at present (where they appear to have no credit record at all other than in Member States where they have accounts established).

The Internet is likely to be one of the main channels through which cross-border selling of credit facilities will develop in future. However, in the CCD there is no explicit mention of the Internet as a sales channel—this is particularly problematic, as certain provisions in the CCD could be interpreted as making the use of the Internet as a sales channel more difficult. For instance, the ban on the negotiation of credit agreements off premises (unless invited by the customer specifically for this purpose) could be interpreted as a requirement for Internet-based credit providers to set up branches where credit agreements could be arranged, effectively eliminating the efficiency benefits of using the Internet as a marketing and sales channel (but not as a means of payment and account management, etc).

Additionally, no guidance is available on whether and how the duty to advise (Article 6) could be satisfactorily discharged by Internet-based credit providers. If it were not possible to present advice through an online decision tree or advisory guide, or to provide advice via a series of secure email interactions, the implication would be that Internet-based credit providers would have to set up physical branches or call centres in Member States where consumers could arrange face-to-face or telephone-based advice interviews. In particular, if there were a requirement to set up branches, the cost advantage available from the provision of credit through the Internet would be severely curtailed. A similar argument can be made for credit providers that use direct mail in the provision of consumer credit.

Several articles, for example Articles 10 and 11, oblige credit providers and consumers to use paper or other durable media in communications relating to credit agreements. At present, several Member States are considering implementing provisions allowing for the use of electronic signatures. The CCD, while not preventing Member States from providing for the legalised use of electronic signatures, may, depending upon interpretation, prevent their effective deployment in the provision of consumer credit. By doing so, consumers may in turn be prevented from benefiting from a more economically efficient (yet still secure) means of communication and identification.

Overall, Article 8 of the CCD is likely to contribute to the achievement of a single European market for consumer credit. Creating a single market is likely to yield economic gains as a result of an increased scope for cross-border competition and economies of scale. However, this does not provide justification for imposing unnecessary costs through other provisions in the Directive on credit providers and consumers. As indicated in this report, the benefits of these provisions are likely to be small and would only accrue to a small minority of consumers. Furthermore, in several cases the objectives behind the provisions can be achieved in a less restrictive way.

2.4 Improving information and transparency

A number of provisions in the Directive *aim* to improve the information and transparency in the market for consumer credit.

- As set out above, the establishment of a central database or network of (mirrored) databases in each Member State would bring a series of benefits.

- Articles 13 and 14 of the CCD introduce the requirement for credit providers to inform their customers of the borrowing rate and the total lending rate.

- Article 34 obliges credit providers to inform their customers of any changes to the terms and conditions of their credit agreements, and to get customers to re-sign their credit agreements. This is aimed at making sure that consumers are informed of (and consent to) changes to the terms and conditions of their credit agreements.

- The duty to advise (Article 6) places a burden of responsibility on credit providers to provide information about the full range of credit products they provide and to advise their customers on the most suitable credit product for their intended purpose. This may ensure that consumers make a better-informed choice of credit product.

There are two reasons for increasing transparency in the market for consumer credit. First, it is good from a *consumer protection point of view*. By making information on credit facilities more easily available, consumers will be able to make more informed decisions about which credit facilities to take. This prevents consumers from making use of credit facilities that do not fully suit their needs, or would result in either avoidable financial burdens (ie, cheaper forms of credit would be made available) or financial burdens that they would not be able to bear. Second, increasing transparency is good from a *competition point of view*. It allows consumers to shop around more easily and compare prices and products. This increases competition on price and quality, and improves the incentives on credit providers to offer credit at competitive rates and via efficient sales and delivery channels.

However, too much information does not necessarily increase transparency. In the case of Articles 13 and 14, which introduce the borrowing rate and the total lending rate, the likely result would be confusion among consumers. Evidence shows that the existing presentation of the cost of credit (in particular, the APR) is not well understood by consumers.[12] The addition of two rates would be of very little use and could work against any benefits from increased transparency.

While the duty to advise may result in consumers being better informed about the range of products on offer with any particular supplier, it would also make it more difficult for consumers to shop around and compare quotes from various credit providers. This is because credit providers would only be willing to provide a quote after an interview has taken place. In contrast to the present situation, whereby consumers can quickly get quotes from credit providers, the search for a competitive rate will take much longer,

[12] PAS Business Surveys (1988), 'Consumers' Use of Credit Survey', London, report for the Office of Fair Trading (OFT).

resulting in increased search costs and reducing the scope for competition in the consumer credit market.

In sum, as also explained above, the establishment of a central database or network of databases in each Member State would bring a series of benefits. It would reduce the information asymmetry between credit providers and consumers, which would make it easier for borrowers to switch credit providers and for new credit providers to enter the market for consumer credit. However, a number of other provisions in the Directive do not necessarily contribute to greater transparency and may negatively affect competition between credit providers.

2.5 Responsible lending and the problem of overindebtedness

One of the objectives of the Directive is to increase consumer protection and to address the problem of overindebtedness.[13] The most relevant provisions in this context are the duty to advise (Article 6) and the principle of responsible lending (Article 9).

The Commission argues that the principle of responsible lending would force lenders to be more careful, and that, in the long run, they would have to write off fewer loans as bad debts. According to the Commission, as the cost of writing off such uncollectable loans is included in the cost of credit, reducing the number of bad debts should result in cheaper loans.[14]

This line of reasoning is flawed. It is the case that reducing the availability of credit to high-risk consumers is likely to result in a reduction in the *average* default rate; however, this is not necessarily beneficial from an economics point of view. Restricting credit to low-risk consumers comes at a high 'price'—consumers with lower credit ratings would be excluded from accessing credit. Financial exclusion is discussed in further detail below (section 2.5.2). Furthermore, although restricting credit to consumers with low credit ratings is likely to reduce the average default rate and to affect the average price paid by borrowers, it is unlikely to affect the majority of borrowers. In a competitive market, consumers pay a price in line with the cost of funding and their own risk profile. A reduction in default rates in the category of higher-risk consumers is unlikely to affect the interest rates paid by lower-risk borrowers.

Regarding the principle of responsible lending, a number of comments can be made. First, it is in the interest of credit providers themselves to behave responsibly—ie, to ensure that their customers can be expected to discharge their obligations under the credit agreement. The principle of responsible lending is included within the voluntary codes of the BBA, the CML and the FLA, and by some credit providers included in their published policy

[13] According to Thierry Vissol, Head of Financial Services, DG Health and Consumer Protection, European Commission, the Directive would address the problem of over-indebtedness. See Vissol, T. (2002), 'Updating and Revising the Consumer Credit Directive—A General Commented Approach'.
[14] See European Commission (2002), 'Questions and Answers on Consumer Credit', November.

statements. There is therefore no need to include a responsible lending principle in regulation.

Second, as explained in further detail in section 3, the inclusion of the principle of responsible lending is likely to result in extra costs for credit providers and to affect their provision of credit. The lack of balance inherent in placing the full responsibility for responsible lending onto credit providers is likely to make them less willing to provide credit to those for whom there is a relatively high risk of default (and hence possible resultant litigation).

Third, the principle of responsible lending and the duty to advise are unlikely to address the problem of overindebtedness.

Finally, due to the likelihood of those with low credit ratings (who are predominantly made up of low and irregular earners and sub-prime borrowers) being unable to access as much credit as is possible at present, the CCD may exacerbate the problem of financial exclusion.

2.5.1 Causes of overindebtedness

In the economics literature, there is no generally accepted definition of overindebtedness. However, several recent studies give some guidance. Generally speaking, overindebtedness refers to a situation where a household is unable to repay debts, whether consumer or mortgage debts. In a study by the Economic and Social Committee of the European Commission, a household is considered overindebted if it is:

> objectively unable, on a structural and on going basis, to pay short-term debts taken out to meet the needs considered to be essential, from their habitual income provided by work, financial investments or other usual sources, without recourse to loans to finance debts contracted previously.[15]

A recently published report on overindebtedness commissioned by the DTI concludes, on the basis of an empirical analysis, that households with one of the following characteristics have a high risk of getting into financial difficulties, if they are not already in difficulty:[16]

- having four or more current credit commitments;
- spending more than 25% of gross income on consumer credit; or
- spending more than 50% of gross income on consumer credit and mortgages.

Those in this position could be overindebted. These criteria should be regarded as guidance only—they do not mean that a household is only, or is necessarily, overindebted if its spending is above these levels.

[15] Economic and Social Committee of the European Commission (2000), 'Production and Consumption on Household Over-indebtedness', CES 212.
[16] Kempson, E. (2002), 'Over-indebtedness in Britain, A Report to the Department of Trade and Industry', September.

The research mainly focuses on the causes of overindebtedness. Four groups of overcommitted debtors could be distinguished:[17]

1. overcommitment caused by an unexpected adverse event, such as unemployment, divorce, illness;

2. individuals and households overcommitting due to unscrupulous management of personal finances;

3. individuals and households with low incomes who need credit to attain a reasonable standard of living; and

4. individuals who overcommit on purpose, in an attempt to defraud their creditors.

Research shows that overindebted households are mainly found in the first category. However, provisions in the CCD, such as the duty to advise and responsible lending, are aimed mainly at alleviating problems regarding households in categories 2 and 3. In other words, the CCD is unlikely to address the predominant causes of overindebtedness.

Table 2.2 summarises the results of a survey on causes of overindebtedness. Loss of income was identified as the most common reason for falling behind with repayments. This was often due to unemployment, relationship breakdown, or other unexpected adverse events. The second most common reason among households was having low income. Fewer people attributed their problems to overcommitment. Furthermore, financial difficulties were also strongly associated with setting up a home or having children.

[17] See, for example, Huls, N. (1993), 'Towards a European Approach to Overindebtedness of Consumers', *Journal of Consumer Policy,* **20**:2, 143–59.

Table 2.2: Causes of financial difficulty in the UK

	Households in arrears or difficulties (%)	
Loss of income		45
of which:		
Redundancy	19	
Relationship breakdown	5	
Sickness or disability	7	
Other loss of income	14	
Low income		14
Overcommitment		10
Increased/unexpected expenses		12
Overlooked or withheld payment		8
Third-party error		5
Debts left by former partner		4
Other reason		3

Source: Kempson (2002), op. cit.

Overall, Table 2.2 indicates that just under one-quarter (24%) of cases of arrears or payment difficulties may be attributable to 'borrowing too much' (ie, either because of 'low income' or 'overcommitment').

Empirical evidence on other countries in Europe shows similar results. A recent study on overindebtedness in Europe by the European Credit Research Institute concluded that factors other than accumulation of debt are the main causes of excessive indebtedness.[18] Table 2.3 shows the causes of overindebtedness in France; 77% of the cases were related to unforeseeable events such as unemployment, illness, divorce or death of partner.

Table 2.3: Causes of overindebtedness in the Pontoise region in France

Indebtedness factors	% of total
Unemployment	42
Illness	11
Divorce or death of a partner	20
Suppression or reduction of social benefits	4
Other	23

Source: European Credit Research Institute (2002), op. cit.

A recent extensive study undertaken by ORC Macro on overindebtedness in Europe finds that there is no clear evidence to suggest that increased availability of consumer credit

[18] European Credit Research Institute (2002), 'Credit Bureaus in Today's Credit Markets'.

would lead to a higher percentage of overindebted households.[19] For example, Greece has a much higher percentage of overindebted households than other Member States. However, consumer lending is relatively low in Greece. The study concludes that the use of debt to smooth consumption over time, together with a developed credit market and some informed consumers, may actually be a factor in lowering the proportion of indebted households that have difficulties in servicing their debts.

In sum, the studies show that the majority of cases of overindebtedness are caused by events that are fundamentally unforeseeable at the time of making the decision to provide a customer with credit. This suggests that the measures proposed in the CCD are unlikely to be effective in tackling the problem of overindebtedness. While overindebtedness affects a relatively small proportion of households, the CCD itself is likely to benefit only a relatively small proportion (less than 24%) of these. (This is despite the fact that rules would be imposed that would affect the provision of credit to all consumers, and hence increase the cost of credit to all consumers.) Overindebtedness is already a matter of concern to credit providers, as they stand to lose money in cases of default and payment difficulties. It is therefore in the interests of credit providers to prevent overindebtedness in the first place—for this reason, banks already have sophisticated risk-assessment systems in place in order to be able to make an appropriate judgement on the risk of overindebtedness from individual loans.

Instead of rules that apply unnecessarily to all users of credit, measures to make available sufficient information about the credit products requested by consumers and about the consumers' financial situation are more likely to be successful in helping the small proportion of households that become overindebted as a result of overcommitment or poor management of personal finances.

2.5.2 Financial exclusion

Financial exclusion refers to situations in which households lack access to financial services. Early discussions on financial exclusion focused on issues of geographical access to services and to banking outlets in particular. More recent literature now also distinguishes between a number of other dimensions of financial exclusion:

> *Access exclusion*—the restriction of access through the processes of risk assessment;
>
> *Condition exclusion*—where the conditions attached to financial products make them inappropriate for the needs of some people;
>
> *Price exclusion*—where some people can only gain access to financial products at prices they cannot afford;
>
> *Marketing exclusion*—whereby some people are effectively excluded by targeting marketing and sales;

[19] ORC Macro (2001), 'Study of the Problem of Consumer Indebtedness: Statistical Aspects', Report to the European Commission, October.

> *Self-exclusion*—people may decide that there is little point applying for a financial product because they believe they would be refused. Sometimes this is a result of having been refused credit in the past, sometimes because they know someone else who has been refused.[20]

For a significant number of people with low or irregular incomes, these types of exclusion represent a major barrier to accessing the mainstream financial services that the better-off take for granted.

The provisions on responsible lending and the duty to advise may make credit providers more cautious in providing credit in particular to consumers with relatively low credit ratings (ie, people with impaired credit records, a history of bad debt, or those with low or irregular income). This is likely to result in a reduction in the supply of credit to this category of consumers, and may lead to an increase in the use of credit from sources willing to operate outside of legal and regulatory regimes.

2.6 Basel Capital Accord

The CCD should be assessed against the background of the new Basel Capital Accord which is likely to be implemented by the end of 2006.[21] The present Basel capital requirements apply standard risk weightings to a number of credit categories. As an alternative to the use of standard risk weightings, the Basel proposals recommend an internal rating-based approach to determining regulatory capital charges. Under this approach, banks will be allowed to use their internal estimates of borrower creditworthiness to assess credit risk in their portfolios, subject to supervisory approval and strict methodological and disclosure standards. The new framework allows for both a foundation method and a more advanced methodology for credit-risk exposures. In the foundation internal rating-based approach, banks estimate the probability of default associated with each borrower, and the supervisors set values for the other credit-risk component—ie, the loss given the default of the borrower, expressed as a percentage of the exposure. In the advanced approach, banks with sufficiently developed internal capital allocation processes will be permitted to estimate probability of default as well as the loss given default. Both approaches will provide a more diverse range of risk weights than under the standardised approach, resulting in greater risk sensitivity. As banks develop their risk-management systems, it is intended that they will move from the simple standardised approach to the internal rating-based credit-risk measurement.

Overall, the aim of the new framework is to adopt a more flexible approach to capital regulation that is more risk-sensitive, by aligning regulatory capital to underlying risks, and that provides greater incentives to improve risk management. In general, banks will

[20] See Financial Services Authority (2000), 'In or Out? Financial Exclusion: A Literature and Research Review', Consumer Research 3, July.

[21] See Basel Committee (2003), 'Third Consultative Paper on the New Basel Capital Accord', April; and European Commission (2002), 'Draft EC Directive on Capital Requirements', November.

be obliged to hold more capital for loans to borrowers with lower credit ratings than for those to borrowers with higher credit ratings.

This means that if banks are faced with increases in the credit risk of their portfolio of loans, they will have to put aside more capital in order to comply with the Basel Capital Requirements. In other words, increases in credit risk will result in higher (funding) costs for banks. Certain provisions in the CCD, such as Article 14 which obliges credit providers to link variable interest rates to an agreed index, conflict with the approach taken in the new Basel Accord. In particular, Article 14 would prevent banks from raising interest rates if the risks associated with the outstanding loans and the resulting funding costs increase.

2.7 Mortgages

The CCD will cover mortgages only in as far as they are used for 'consumption' purposes—mortgages used solely for the purchase and renovation of immobile property will not be covered.

This raises a number of issues. First, the Directive assumes that mortgage lenders know the purpose of a mortgage. However, this is not the case in practice—mortgage lenders generally do not know or find out about the purpose of a mortgage. As mortgages are secured against property, the actual use of money withdrawn as equity does not matter—compared with unsecured personal loans, the added risk of mortgage default as a result of equity withdrawal is relatively small. The lack of knowledge about the purpose of a mortgage on the part of credit providers would make it difficult for them to apply the Directive.

Second, it could be argued that all mortgages with the potential to be used for 'consumption' purposes fall under the Directive. However, in the UK, many mortgages have a flexible element whereby equity can be withdrawn during the course of the mortgage. If the Directive applies to mortgages with flexible provisions for equity withdrawal, whether or not consumers actually use this facility, this may imply that the Directive will apply to a substantial proportion of the mortgages taken out in the UK.

Third, owing to the way in which mortgages differ from other forms of credit (amount of credit provided, security against property, etc), there is arguably a case for regulating them separately. This is indeed the approach that is being taken in the UK at present, where it is planned that the Financial Services Authority (FSA) will regulate mortgage providers from the second half of 2004. There is therefore a risk that the regulations put in place by the FSA will differ both in content and in spirit from those in the CCD, causing unnecessary and avoidable difficulties for mortgage providers.

2.8 Maximum harmonisation

In contrast to the 1987 Directive, which is based on the principle of minimum harmonisation, the new Directive is based on the principle of maximum harmonisation. This means that Member States may not introduce provisions in the areas covered by the CCD other than those laid down in the Directive. Whereas, at present, Member States can introduce regulation in addition to the provision of the existing Directive, under the proposed CCD, they could no longer impose regulation that goes beyond what is in the CCD.[22]

[22] Article 30 of the CCD gives exceptions to the principle of maximum harmonisation in relation to Article 33 on the burden of proof and in relation to Article 8 (4) on the setting-up of a database for positive data. Furthermore, national provisions covering maximum or exorbitant APRs, or any other type of setting or evaluation of maximum or exorbitant rates, may continue to apply. The CCD does not regulate this area.

3. Quantification of the Economic Effects of the Directive

The impacts discussed in section 2 (and examined in greater detail in section 4) would give rise to a series of negative effects in the wider economy. As a result of the restriction in the supply of credit and the increase in the cost of credit, the use of consumer credit could be expected to decline. Given the influence that the availability and cost of credit has on consumer expenditure decisions, any reduction in the use of credit would lead, all other things assumed equal, to a reduction in consumer expenditure over the medium to long term and a one-off reduction in the level of GDP as the economy adjusted.

In this section, the impact of the Directive on the economy is described quantitatively. The first part of the analysis presents the macroeconomic analysis. In light of the fact that the macroeconomic results describe the impact on the economy only in terms of broad output measures, the second part of the analysis goes on to present the impact of the CCD on consumers in terms of the effect on their welfare of the reduction in the availability of credit and the increased price they would pay for credit.

3.1 Modelling inputs

The main direct cost impact of the Directive, if implemented, would arise through the 'duty to advise' (Article 6) and the requirement for credit agreements to be re-signed whenever the credit limit or the cost of credit were increased, or in any case within two years of the implementation of the Directive (Articles 10, 15 and 34). In addition, the responsible lending provisions (Article 9) would result in a restriction in the amount of lending to those with low credit ratings, as credit providers factored in the risk of litigation (or increased write-offs) through alleged irresponsible lending in the case of customer default. While the remaining provisions outlined in section 4 also have economic effects, the impact arises generally through harmful effects on competition, 'hassle factors' for both consumers and credit providers, and economically unnecessary or harmful behavioural effects. Such effects are difficult to quantify and, hence, in this quantification, only the costs caused by Articles 6, 9, 10, 15 and 34 are included. This will therefore result in an understatement of the overall impact of the Directive.

To recap, the main economic effects are as follows:

- Article 6: an increase in the cost of credit for all consumers;
- Articles 10, 15 and 34: an increase in the cost of credit for all consumers;
- Article 9: a restriction in the amount of credit provided to consumers with low credit ratings.

In this section these effects are modelled using a series of indicative scenarios, developed using representative cost data. For instance, given that around 50% of all credit-card users are provided with credit-limit increases in any one year, it is possible to model the effect of doing this using a conservative estimate of the costs involved.

It is notable that the increase in the cost of borrowing, when expressed in terms of the interest rate, is likely to be considerably higher for unsecured credit than for secured credit. This is because the costs imposed by the Directive have a considerable 'flat cost' element, which tends to increase the interest rate on small loans (as a result of the lower flow of money through which to recover the costs) more than on larger loans, especially those secured against property. Additionally, it is unlikely that changes to the terms of

secured-credit arrangements (ie, changes in rates and credit limits) occur as frequently as those to unsecured-credit arrangements.

The scenarios involve modelling the effects of the Directive both as an increase in the cost of credit and a reduction in the availability of credit overall. Furthermore, the scenarios take into account the likelihood that flexible mortgages would be covered by the Directive. Table 3.1 shows the scenarios used as inputs to the model.

Table 3.1: Scenarios used in the quantification of the effects of the Directive

Scenario	Increase in cost of mortgages (% points)	Increase in cost of unsecured consumer credit (% points)	Total mortgages affected by the Directive (%)	Restriction in availability of mortgage credit (%)	Restriction in availability of consumer credit (%)
1. Low	0.05	0.7	20	3	2.5
2. Medium	0.05	0.7	50	3	2.5
3. High	0.075	1.0	50	3	2.5

The extent of the restriction on the availability of credit was estimated on the basis of the size of the sub-prime market. This is a conservative basis for such an estimate, as it is likely that, in addition to sub-prime consumers, consumers with low or irregular income would also experience a reduction in the amount of credit to which they had access.

A recent Mintel survey found that sub-prime consumers made up 10% of the market for personal loans, and 5% of the credit-card market.[23] The survey concentrated on the number of consumers rather than the value of credit taken out. Given the likelihood that borrowers with low credit ratings hold, on average, less debt than borrowers in the prime market, the reduction in the availability of credit has been modelled using a conservative estimate which assumes significantly lower average borrowing amounts in the sub-prime/low-credit-rating market. In the modelling, it is assumed that unsecured consumer credit is restricted by 2.5%.

Regarding secured credit, the Mintel survey indicates that around 2–3% of the total value of outstanding mortgages is accounted for by sub-prime lending. The figure of 3% is therefore used for all secured credit affected by the Directive. The reduction in secured credit would affect new mortgages rather than current mortgages. Interview evidence indicates that, in recent years, the growth of lending in the sub-prime market has been greater than that of credit as a whole. The actual proportion of sub-prime mortgages that would be affected is therefore likely to be higher than 2–3%. In other words, the 3% figure used in the scenarios is a conservative estimate.

[23] Mintel (2002), 'Sub-prime Lending: Entering the Mainstream', *Financial Intelligence*, September. The Mintel report defines sub-prime consumers as those who have been refused credit more than once or who cannot obtain credit. This is a conservative definition, as it does not include 'near-prime consumers'—ie, consumers who have been refused credit only once.

The reduction in credit would affect a significant number of consumers. The Mintel report indicates that the sub-prime market is made up of 20% of borrowers in the mortgage market, 10% of borrowers in the market for personal loans, and 5% in the credit-card market. This could mean that between 1.5 million and 2 million consumers in the UK would be affected.

In the modelling, the proportion of mortgages affected by the Directive is an important determinant of the results. This proportion depends critically on the interpretation of which mortgages have flexible elements. A low estimate could be made by interpreting flexible mortgages as only those with a pre-arranged facility for discretionary withdrawals of mortgage equity, but only to the extent that it is used. However, the Directive is likely to affect all flexible mortgages, which means that it would cover all mortgages with a pre-arranged flexible element, irrespective of whether this is used (for instance, the duty to advise would apply on a 'per-agreement' basis), and all mortgages where consumers have the possibility of arranging to withdraw equity at some point during the lifetime of the agreement. Figures available from CML/MORI Financial Services indicate that 20% of the stock of mortgages in the UK is flexible (by number).[24]

Estimates established during interviews with leading mortgage providers put the proportion of flexible mortgages issued at present (ie, the 'flow' rather than the 'stock') at around 50% of the market. Over time, it could be expected that the stock of mortgages will come to resemble the current flow of mortgages in terms of its composition. For this reason, the scenarios illustrate the effects of the Directive in the case that 20% and 50% of mortgages are affected. It is nonetheless conceivable that 100% of mortgages could be covered by the Directive, depending on how it is interpreted.

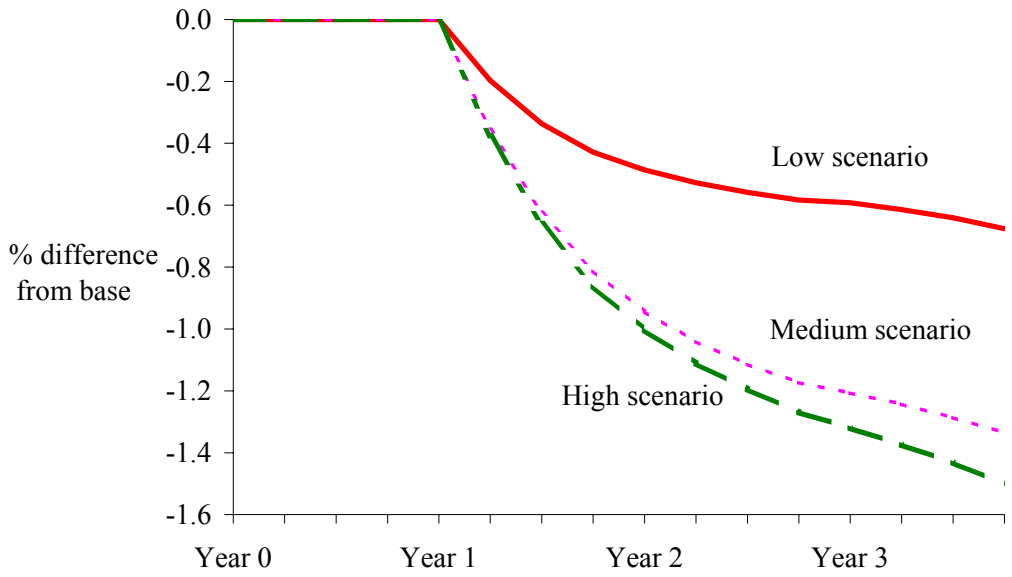
The first part of the analysis looks at the broad economic effects in terms of the use of consumer credit, the use of mortgages, GDP and consumption. The results presented in this part of the analysis are derived from the OEF UK Macroeconomic model—part of the OEF Global Macroeconomic model, which is the most widely used large-scale macroeconomic model in the world. The outputs from the OEF model indicate changes in a series of economic variables, relative to their predicted future levels if no changes were to occur. Further details on the OEF model can be found in the appendices. The second part of the analysis presents an estimate of the likely welfare impact that would result.

3.2 Macroeconomic impact

The immediate effect of both the reduction in the availability of credit and the increase in the cost of credit would be a drop in the use of credit. This would decrease to a steady level after about three years, as the stock of credit changed to reflect the changes imposed. Figure 3.1 shows the effect of the three scenarios on the total amount of credit (ie, secured and unsecured).

[24] CML/MORI Financial Services (2002), 'The Annual Housing Finance Survey 2002'.

Figure 3.1: Effect of the Directive on the total use of credit



Source: OEF.

Figure 3.1 shows that the Directive would result in credit providers making available a lower amount of credit than they would otherwise. In addition to a reduction in the amount of credit used, there would also be a change in its composition. As the cost of secured credit would not increase by as much as that of unsecured credit, consumers would substitute away from unsecured credit towards secured credit, in effect making more use of the flexible elements of their mortgages. Consequently, the reduction in the use of unsecured credit is an order of magnitude higher than that in the use of secured credit.

A consequence of using less credit would be that consumers would be unable to smooth consumption as much. Looked at another way round, in any given period, for the same amount of income earned without the possibility of smoothing consumption, fewer purchases could be afforded. Furthermore, those experiencing a negative shock to their income (eg, through job loss) would be unable to obtain as much access to credit as previously. The credit available to them would also be more expensive.

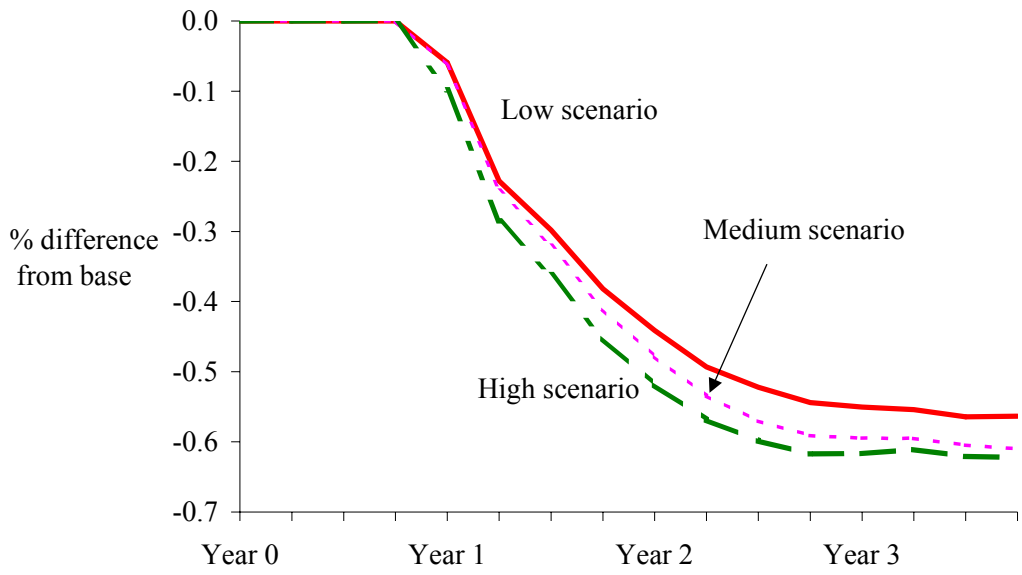
This implies that consumer expenditure (ie, consumption) falls. Other consumers who would be forced to cut their level of consumption more than they otherwise would have done include:

- those with a large outstanding stock of debt, who would experience an increase in the cost of servicing that debt and would therefore be forced to reduce consumption;

- those wishing to fund large one-off purchases by borrowing money, who would not be able to do so if their access to credit was restricted. Such consumers would be forced to postpone such purchases, resulting in a short-term reduction in consumption.

Figure 3.2 shows the effects of this.

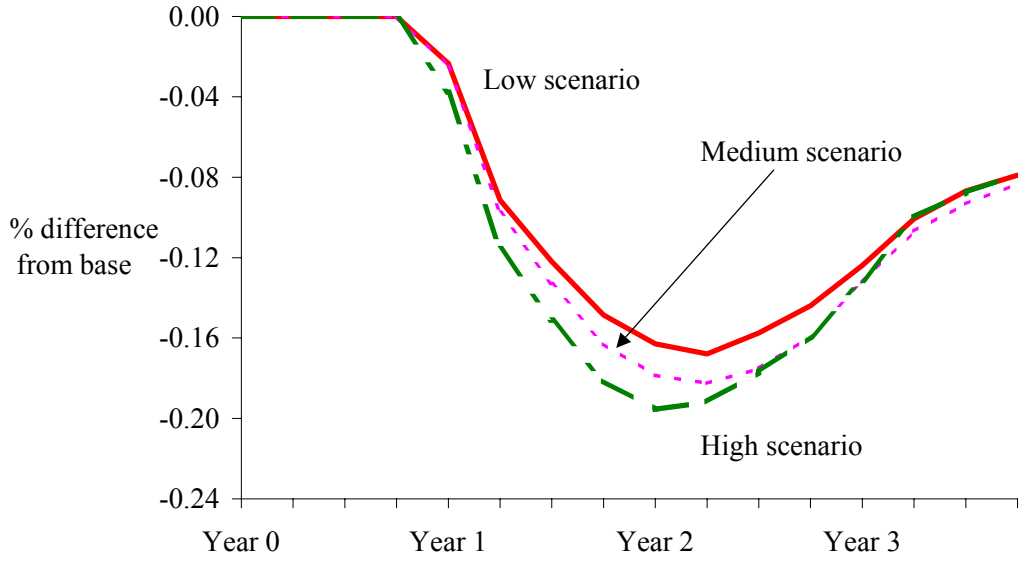
Figure 3.2: Effects of the Directive on consumer spending



Source: OEF.

The main knock-on effect of the reduction in consumer spending is a fall in demand in the economy, which works through into a lower GDP (see Figure 3.3). It is notable that the drop in GDP is not permanent, although it is significant when it does occur.

Figure 3.3: Effects of the Directive on GDP



Source: OEF.

Analysis of the modelling results indicates that the majority of the impact on the economy would arise through the effects of the Directive on unsecured credit. This is mainly because the increase in the cost of unsecured consumer credit is likely to be proportionally higher than that of secured credit.

The reason that the drop in GDP is not permanent is that it is assumed that the Bank of England would use monetary policy to help compensate for a reduction in the level of demand in the economy. If such a monetary policy response did not occur (ie, due to other economic shocks), the impact on GDP would be likely to be worse than that shown. Over the long term, the reduction on consumer spending would also translate into an increase in savings, which, along with the monetary policy response, would lead to an increase in the level of investment and in the capital stock. Over the long term (at least ten years), consumer expenditure would recover to its original level. However, in the meantime, there would be the real cost of the reduction in GDP and the welfare impact of consumers not being able to use as much credit as they demand at present, and having to pay more than at present for the credit they do use. This is modelled in the following section.

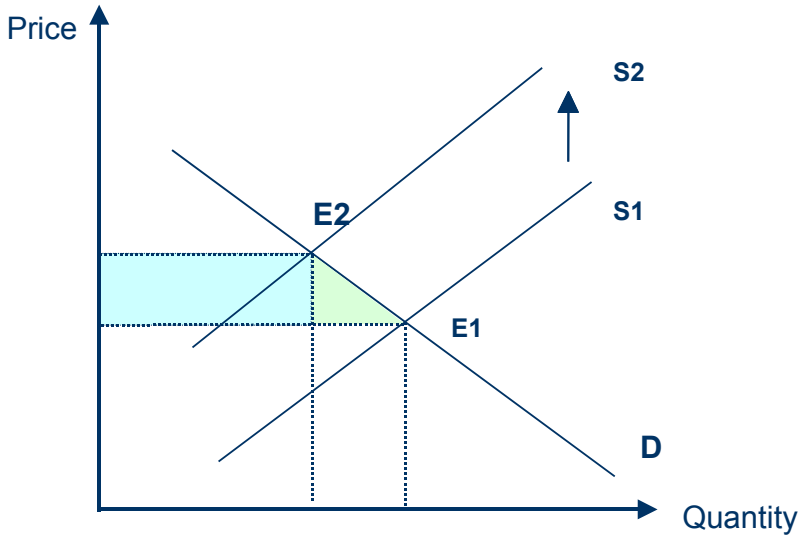
3.3 Impact on consumer welfare

In addition to the effect on consumption and GDP, the reduction in credit may result in a net welfare loss. As is well established by the economic theory of consumption, individuals like to smooth their consumption over their life cycle, and credit markets allow them to do so. By preventing full inter-temporal smoothing of consumption, credit constraints may lead a sizeable proportion of consumers to link consumption decisions to current disposable income flows, rather than permanent income. In other words, the credit constraint introduces a distortion in the market: it restricts choice for consumers and prevents them from smoothing their consumption over time. This means that shocks to current incomes will pass through more fully to consumer spending, thereby reducing welfare for risk-averse consumers.

The welfare effect from restricted smoothing is further exacerbated, as the credit restrictions would not apply homogeneously to all consumers. The effect of contraction in supply is to exclude the most vulnerable marginal borrowers from the credit market—ie, the borrowers with lowest credit ratings. These consumers are also likely to have the lowest current incomes, so they would also be those who benefit most from smoothing some of the future consumption to the present.

Figure 3.4 presents a demand and supply curve analysis of the possible reduction in the supply of credit. The consumer credit supply prior to the introduction of the Directive is denoted with demand curve D and supply curve S1. The resulting market equilibrium occurs with the prices and quantities as in E1. The reduction in the supply of credit and the additional unavoidable costs is denoted in the diagram as a shift in the supply curve up and to the left, to S2. The market settles in new equilibrium E2, where less credit is supplied to consumers at a higher price.

Figure 3.4: Impact of the Directive on the consumer credit market



In the diagram, the reduction in welfare is depicted by the loss in consumer surplus (the shaded area). This loss can be quantified by estimating the price elasticity of demand for consumer credit and undertaking a scenario analysis of a number of price increases of credit. Table 3.2 shows a series of estimates of the impact on welfare according to each scenario. The impact on welfare shown in the table includes the effects on both secured and unsecured credit.

Table 3.2: Estimated welfare losses arising from the implementation of Articles 6 and 34

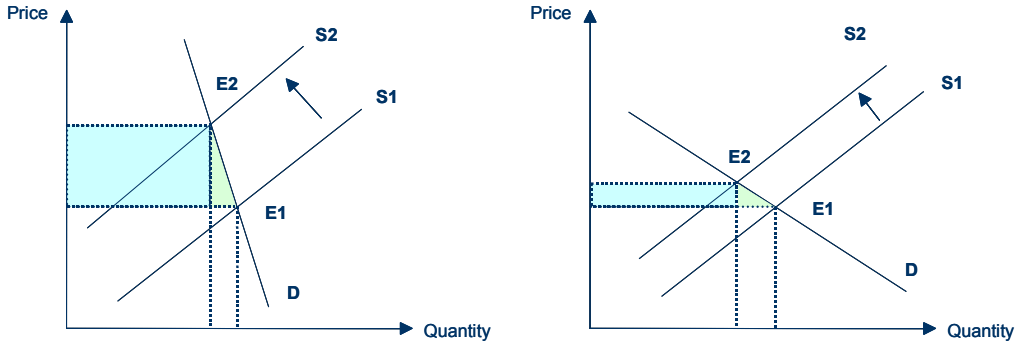
Scenario	Estimated annual welfare loss
1. Low	£700m (€1.0 billion)
2. Medium	£900m (€1.3 billion)
3. High	£1,250m (€1.8 billion)

Source: OXERA calculations.

The impact on welfare in Table 3.2 is shown on an aggregated basis. However, this economic impact may not be felt evenly across the population/income distribution. Credit is particularly important for those on low and irregular incomes because it is needed to smooth consumption, as borrowing either to fund seasonal or one-off purchases or to cover costs while no income is being received.

On this basis, the elasticity of demand for credit would be expected to be lower for those on low or irregular incomes (and those in the sub-prime market) than for those with high incomes. Furthermore, because Article 6 is likely to impose relatively flat costs on a per-agreement basis, the average increase in the cost of credit is likely to be higher for those with the least access to credit. Although insufficient data is available to calculate the relative welfare effects between low/irregular income and sub-prime market consumers and high-income prime market consumers, this can at least be illustrated graphically. Figure 3.5 shows the welfare effects using a linear representation of the supply and demand curves for consumer credit.

Figure 3.5: Relative welfare effects of the Directive



Low/irregular-income and sub-prime borrowers High-income and prime borrowers

In Figure 3.5, the lower elasticity of demand for credit among low earners is represented by a steeper demand curve (D) than the demand curve for high earners. Similarly, as low earners have access to less credit than high earners and the credit-rationing effect will predominantly affect consumers in the sub-prime market, the higher average increase in the cost of credit is shown as a greater shift (reduction) in the demand curve than occurs for high earners.

Despite the fact that low earners experience a greater increase in the cost of credit than high earners, the reduction in the amount of credit they use is shown to be lower than the reduction for high earners. As a result, the welfare loss (shown as the shaded area in Figure 3.5) is likely to be larger for low earners than for high earners. In light of the limitations of the modelling process, the aggregated welfare effect may underestimate the impact of the Directive and does not capture the distributional consequences. Further welfare losses could be expected to result from the Directive owing to the inconvenience caused by the articles that were not modelled, and the long-term effects on competition.

3.4 Summary

This section has shown that the overall economic impact of the Directive is likely to be serious, with reductions in the use of consumer credit, which in turn reduce the level of consumer expenditure and GDP over the short to medium term. Furthermore, as a result of the restrictions in the availability of both unsecured and secured credit, and the increase in the cost of both forms of credit, consumers would be worse off in terms of their overall welfare.

Table 3.3 summarises the 'peak' short- to medium-term impacts of the Directive under the three scenarios according to its impact on the use of credit on consumer expenditure and GDP—equivalent monetary values are also provided. In addition, the monetary value of the impact on consumer welfare is given, expressed also as a proportion of present 'expenditure' on consumer credit.

Table 3.3: Summary of peak short- to medium-term annual economic impacts of the Directive

		Low scenario	Medium scenario	High scenario
Use of consumer credit	% impact on outstanding debt	–0.7	–1.3	–1.5
	value of impact (£ billion)	–5.9	–10.8	–12.5
	value of impact (€ billion)	–8.5	–15.8	–18.2
Consumer expenditure	% impact	–0.56	–0.61	–0.62
	value of impact (£ billion)	–3.7	–4.0	–4.1
	value of impact (€ billion)	–5.4	–5.8	–5.9
GDP	% impact	–0.17	–0.18	–0.2
	value of impact (£ billion)	–1.8	–1.9	–2.1
	value of impact (€ billion)	–2.6	–2.7	–3.0
Consumer welfare	value of impact (£ billion)	–0.7	–0.9	–1.25
	value of impact (€ billion)	–1.0	–1.3	–1.8
	proportion of total credit usage (%)	–1.4	–1.6	–2.4

Note: Figures shown are in comparison to the OEF base scenario.
Source: OEF and OXERA.

4. Economic Impact Assessment

This section looks at the major provisions in the CCD, reviewing how each compares with the existing regulatory set-up in the UK, and then describing the likely economic impact resulting from the implementation of each provision. Where a provision is insufficiently well defined as to require interpretation, this is discussed and, if necessary, alternative scenarios are described.

4.1 Data protection (Article 7)

4.1.1 Comparison of regulations

Article 7 of the Directive places strict limits on the use of personal data obtained from consumers, guarantors and others in the process of concluding a credit agreement. In particular, data collected for the purpose of assessing the financial situation and ability to pay of those seeking to take out credit may only be used for this purpose. This precludes the use of such data for any other purposes such as marketing.

In the UK at present, personal financial data is passed on to a number of credit reference agencies (CRAs) on a reciprocal basis. Credit reference data is divided into two categories: positive information and negative information. As a minimum, negative information must be provided. Negative information covers a consumer's credit history, including whether they have defaulted on payments during the past few months, information on how many times credit has been applied for, and (public) information on County Court judgements and bankruptcy proceedings. Positive information includes details of how many credit accounts a consumer has and what credit limits are available on each of those accounts.

Only those organisations providing information to the CRAs are allowed access to other similar information. In particular, only companies providing 'positive' information to the CRAs are allowed to draw on other 'positive' information. All companies with access are able to draw on 'negative' data. Furthermore, such companies must be registered with the Office of the Information Commissioner under the Data Protection Act 1998 and be licensed by the Office of Fair Trading (OFT) under the Consumer Credit Act (CCA) 1974.

CRAs also combine credit account data with publicly available information from the electoral roll, the database of County Court judgements, and from public databases on bankruptcies, Individual Voluntary Agreements and Administration Orders. Because such data is public, access to it is unrestricted: CRAs provide a service to members by combining this public data with the private financial data provided to them by those members.

Hence, access in the UK to (private) credit account information is strictly controlled. Similarly, the use of such information, when received from CRAs, is limited. Credit providers at present only use credit reference data either to assess the creditworthiness of their existing or potential/applicant customers, or to screen bought-in customer lists for marketing purposes (ie, to avoid marketing to consumers who would be unlikely to be accepted if they responded). In addition, credit references can be (and are) kept by companies, provided that they are used and held in compliance with the requirements of the Data Protection Act.

Personal data can be used by creditors for internal marketing purposes (eg, cross-selling) and can be distributed to other companies (often via 'list brokers'). Under the Data Protection Act 1998, as long as the customer is told of the potential use of their personal data for a given purpose and gives consent to this, the use of that data for the named purposes is legal. At present, customers must give consent for data to be used for marketing purposes. Additionally, under Section 11 of the Data Protection Act 1998, customers who have already consented to the use of their personal data for marketing purposes can write to the 'data controller' at the relevant credit provider and prevent that use.

Subject to consent, credit providers tend to use a combination of privately purchased customer 'lists' (purchased from list brokers) and the data they acquire during the application process for marketing purposes. Data from lists alone is used for marketing any of the range of products provided, whereas data from both the lists and the application process is used for cross-selling of other available credit products to existing customers.

Article 7 of the Directive, by preventing the use of *any* data acquired in the process of concluding, negotiating or managing a credit agreement, regardless of whether a customers has consented to its use, would represent an increase in the restrictions on the use of personal data in the UK. It would have no effect on the use of credit account data for the purpose of assessing the financial position of a potential borrower. However, the ability of creditors to use personal data (ie, on credit accounts) for marketing purposes would be removed entirely.

4.1.2 Economic impact assessment

At present, credit providers acquire data on their customers during the negotiation, conclusion and management of a credit agreement. This data is used for several purposes.

- *Marketing*—credit providers use their own internal data to target specific groups of customers for cross-selling purposes. Direct marketing relies on the use of bought-in customer lists, including data from the electoral roll. This data is often processed against residential databases (typically the electoral roll) to select specific groups of customers. More importantly, credit reference records are also used to target customers in specific risk groups.

  Cross-selling can take on a number of forms:

  - direct—a multi-line credit provider markets additional services to existing customers;
  - joint ventures—a credit provider markets to its customers a service or range of services that it provides in conjunction with another firm;
  - affiliated partner arrangement—a credit provider markets to its customers an approved service that is provided by another, affiliated credit provider.

- *Risk assessment*—when a customer opens a credit account, credit providers routinely access data from CRAs. This data is then used to assess the creditworthiness of each applicant. During the course of running and managing a credit account, the account data is processed so as to keep track of the credit risk of each customer. This is known as 'credit scoring'. Some credit providers keep

credit references on their own systems and periodically download data from CRAs in order to keep these records up to date, thereby enabling them to assess the credit risk of their customers on a periodic basis using both account data and credit reference data.

- *Prevention of fraud and money laundering*—data is used to comply with statutory money laundering requirements and for detecting and preventing fraud.

- *Risk-measurement systems development*—past customer data is kept in a data warehouse system so as to assess and improve existing risk-measurement/credit-scoring systems. Data-mining techniques enable credit providers to look for patterns in past data, in particular with regard to unforeseen loan defaults.

One of the most significant applications of customer data is in the process of increasing credit limits on credit cards and overdraft limits on bank accounts. Credit providers periodically provide credit upgrades in terms of higher credit limits and/or lower interest rates to customers who have demonstrated a low lending risk in the past. The information drawn upon to reach this decision is almost always past credit account data—sometimes this is augmented with credit reference data, depending on the amount of lending at stake.

Although the draft text is not entirely clear, it is unlikely that Article 7 is intended to affect the use of customer data for assessing creditworthiness ahead of an upgrade. The activity of upgrading can be viewed as a regular 'programmed' feature of standard credit facilities that is only blocked when risk-assessment systems indicate that the customer in question does not have a sufficiently good risk profile to justify further lending or the extension of credit limits.

However, if Article 7 does prevent credit providers from using their own credit account records for this purpose, this will run counter to the requirements and purpose of Article 9 (responsible lending). Responsible lending requires credit providers only to provide and extend credit after having assessed whether a customer can reasonably be expected to be able to repay the credit provided—if credit providers are not allowed to access their own detailed personal credit account data, their ability to assess their customers' ability to pay will be jeopardised.

Instead, the main effects and consequences of Article 7 would be to prevent credit providers from using:

- customer data to generate contact lists for the purpose of marketing additional products. This would reduce the effectiveness of marketing as a method of targeting existing customers;

- credit reference data to screen publicly available customer lists. Again, this would reduce the effectiveness of marketing activities. Moreover, small and monoline credit providers rely much more on bought-in lists for direct marketing than large diversified providers of financial services do, as they have only a small customer base, and often cannot rely on the use of internal customer data derived from financial services not covered by Article 7 (such as purely residential mortgages and deposit accounts). In other words, it may make entry for new credit providers to the market more difficult;

- customer data for preventing fraud and money laundering. If data cannot be accessed for such purposes then it may become more difficult to detect and investigate fraud and money laundering, especially if information has to be destroyed (see next section);

- customer data gained in the course of managing a credit agreement for the purpose of assessing the validity of past lending decisions in order to improve the quality of future lending decisions.

In general, the effect of Article 7 would be to reduce the availability of filtered lists for use in marketing by credit providers. Furthermore, because credit providers would no longer be able to store old credit reference records to validate their risk-assessment systems, there is a danger that, over time, they would miss important trends in borrowing and defaults, and would be unable to identify customers potentially at risk of defaulting.

Article 7 appears to be predicated on the following bases:

- to protect consumers from receiving unwanted marketing material; and
- to ensure that only up-to-date credit records are used to assess consumers' creditworthiness.

However, it would not prevent credit providers from sending out marketing material. Furthermore, its contribution to the protection of consumers against such material would be mixed:

- the effective cost of marketing would increase, as the ability to target specific customer groups would be curtailed. This may reduce the amount of marketing undertaken, but such an outcome would lessen the chances of consumers being informed about a product in which they might be interested;

- the risk of mismatch between the targeting of marketing activities and the actual recipients of marketing material would increase. The likelihood that the recipients of marketing material perceived this as 'junk mail' would rise.

The objectives behind Article 7 could be achieved in a less restrictive way. Instead of preventing the use of personal data for any purpose other than the assessment of consumers' ability to meet their obligations (however interpreted), a system similar to that in place at present under the Data Protection Act would enable consumers to give their consent to receiving marketing material or to 'opt out' if they have already given consent. The negative effects from the restricted use of data for purposes other than credit checking would then be avoided. Similarly, the adoption of the provisions of the Data Protection Act—that information held should be 'accurate' and 'not kept longer than necessary'—would prevent credit providers from using out-of-date credit references for credit-checking purposes, but would leave them free to hold past credit reference records for the limited purpose of validating their own internal credit risk-assessment systems.

4.2 Central database (Article 8)

4.2.1 Comparison of regulations

Article 8 of the Directive obliges EU Member States to set up a central database (or a network of databases) to hold details on consumers and guarantors who have defaulted

(ie, negative data—positive data is optional). Credit providers will be obliged to consult this database on a case-by-case basis whenever an application for credit is made, in accordance with Article 9 (responsible lending). In addition, under Article 8, records, once used, must be destroyed by the creditor, whether or not a credit or surety agreement is concluded.

The UK system of databases would be affected by Article 8. Whereas, at present, three CRAs hold their own private databases, Article 8 could be interpreted as obliging the UK to establish a central database or a network of (identical) databases in the UK. Therefore the 'credit data' held by the CRAs in the UK would have to be similar in terms of the specification of the fields in the databases. Another possible structure would be to set up one central database with basic functionalities to which private database and credit providers receive access. The private databases can then offer more sophisticated functionalities and compete with each other in providing their services to credit providers.

The obligation on the part of creditors to destroy immediately all personal data used in the assessment of consumers and guarantors represents an increased restriction compared with those prevalent in the UK at present. While the Commission has clarified that this is not the intention of the Directive, as the Directive stands at present the wording could be interpreted as introducing such requirements. In the UK, two of the eight 'principles of good practice' state that data should be accurate and kept no longer than necessary.

This implies that creditors are able to hold credit records for some length of time, but that they will be obliged to discard them once they are no longer useful. The Data Protection Act 1998 does not specify how long data should be held: this is essentially left to the discretion of the body holding the data, within the spirit of the principles of the Act.

4.2.2 Economic impact assessment

The present use of data from CRAs is predicated upon the commercial interests of credit providers and the legal/voluntary obligations in place. In the vast majority of cases, credit providers access credit reference data when dealing with an application for credit from a new customer (ie, one without an existing account with the provider). Most credit providers also download 'fresh' credit data periodically in order to update their customer records and find out whether the risk level of their customers has increased due to payment defaults with other credit providers.

When granting increases in credit limits to existing customers (typically as increases in borrowing limits on credit cards and overdrafts), many credit providers also access credit reference data. However, a considerable proportion of credit providers rely only on their own detailed customer records data or their own predetermined 'shadow limits' when granting an increase in a credit limit, or indeed a new loan, provided that the amount of new credit is relatively small. Shadow limits represent the limit of what they would be willing to provide a customer without the need for further credit checking, depending upon that customer's income and risk characteristics, and are calculated using credit reference data in combination with internally held personal account data. The value of a shadow limit is by construction equal to or higher than a customer's actual credit limit. For large loans, as a rule, credit reference data is accessed even when the customer has a low risk profile and is already well established.

Article 8 of the Directive would change the current practice in a number of ways:

- credit providers would have to access CRA data every time credit or an increase in credit was provided;
- credit reference data would have to be destroyed immediately after an assessment of a customer's creditworthiness had been completed;
- credit reference data could therefore no longer be kept (subject to periodic update) as part of a customer's risk profile.

The restrictions on the storage of credit reference data would have little effect on the assessment of customer risk, given the obligation to access credit reference data in all cases in which credit was provided. However, the obligation to destroy such data after the conclusion of a credit agreement would seem to conflict with the provision on responsible lending, under which lenders would effectively be required to keep an audit trail of their risk assessment. Furthermore, this would prevent credit providers from obtaining any insight into the history of the credit profiles of their customers as required for the development of risk-assessment models such as credit scoring. This would make future risk analyses (and connected upgrades of credit products) more difficult.

Setting up a central database or a network of databases would involve certain up-front systems costs. However, the proposals for a central database or network of databases of credit reference data would also have considerable advantages. The ability to access credit reference data on consumers with accounts in different Member States would enable credit providers to compete for customers in other Member States. Even within a given Member State, local credit providers (without operations in other Member States) would have access to intra-European credit reference data and would no longer be forced to turn down applications for credit by citizens of other Member States due to a lack of access to their CRA data (which at present manifests itself as the absence of a credit record/risk profile).

If anything, Article 8 of the Directive is misaligned. It concentrates on restricting the use of CRA data by credit providers, but, beyond making CRA data available on a trans-European basis, does nothing to improve the scope and quantity of data available.

The marginal cost of accessing and providing an extra unit of CRA data is very low. Despite this, Article 8 still leaves it as an option for CRA databases to hold positive information: only the holding of negative information is compulsory. While credit providers are to be legally obliged to undertake responsible lending, the Directive misses the opportunity to ensure that the maximum amount of information (both negative and positive CRA data) would be available for them to comply. Fundamentally, if commercially optimal/responsible lending depends on risk-related customer data, and if the marginal cost of providing more data is low, the compulsory availability of more CRA data (ie, at a minimum, positive and negative data, and possibly more) would be a cost-effective way of increasing consumer protection.

4.3 Responsible lending (Article 9)

4.3.1 Comparison of regulations

Article 9 of the Directive makes it compulsory for creditors, when either concluding a credit or surety agreement, or increasing the amount of credit or the amount guaranteed, to make an assessment of whether the consumer/guarantor is able to meet their obligations.

In the UK there is currently no compulsion in legislation for creditors to undertake checks of the financial situation of consumers or guarantors, or their ability to pay. However, in practice such checks are undertaken as a matter of course as it is in the interests of creditors to ensure that they will be able to recover the money they lend out. While there are no rules obliging checks on consumers and guarantors, the regulator responsible for credit institutions, the OFT, has in place a limited set of guidelines (under provision 25(2)(d) of the CCA) for lenders and brokers that undertake business in the non-status (ie, those with low or no credit rating) lending market.[25] The guidelines are limited, in that they apply only to secured lending to non-status borrowers, and state that:

> Lenders should comply at all times with the principle of responsible lending. All underwriting decisions should be subject to a proper assessment of the borrower's ability to repay… (para. 38)

and

> In assessing ability to repay, lenders should ensure that they have sufficient evidence regarding the borrower's income and other financial details. (para. 39)

While the obligation to undertake full credit checks is established in the sub-prime market, Article 9 will extend this legal obligation to the prime market, although, as noted above, it is likely that this practice is already widespread. The Banking Code sets out a pledge that all signatories will assess the ability of their customers to pay. Similarly, Article 4 of the CML's Mortgage Code (a voluntary code to which members of the CML comply) obliges its subscribers to lend money only on the basis of an assessment of a prospective customer's ability to pay, taking into account a wide range of factors.[26] Additionally, under Section 6 of the FLA Consumer Code of Practice, lenders are required to make a sound and proper assessment prior to the conclusion of a credit agreement.[27]

Despite this, the most significant effect of Article 9 will be to shift the burden of proof from litigating consumers—to prove that the creditor undertook irresponsible lending—to providers of credit—to prove that they did undertake responsible lending.

4.3.2 Economic impact assessment

In the UK at present, responsible lending is practised by most lenders, to the extent that it is interpreted as taking steps to ensure that customers can afford to take on any given amount of credit provided. It is in the interests of credit providers themselves to provide credit only to those customers who can reasonably be expected to be able to discharge their obligations under the credit agreement. As described above, the principle of responsible lending is also backed by guidance from the OFT, as well as the provisions of the Banking and Mortgage Codes and the FLA Consumer Code of Practice, which state

[25] OFT (1997), 'Non-status Lending: Guidelines for Lenders and Brokers', November.
[26] CML (2003), 'The Mortgage Code'.
[27] FLA (2002), 'Consumer Code of Practice 2002'.

clearly that lenders should seek to ensure that customers have the financial means to repay any loans they take out.

A number of measures are commonly taken to make sure that customers are able to meet their obligations with respect to any debt they take on. The most common of these measures are as follows.

- When a new customer applies for credit, the credit provider accesses records from one or more CRAs.

- Credit products such as credit cards and overdrafts are typically provided on a 'start low and then grow' basis, whereby new customers are provided with relatively low credit limits and a standard rate of interest (APR). As the credit provider builds up information on the customer's ability and willingness to pay, the conditions of the credit product change. Customers with a good payment record may be provided with a larger credit limit and a lower APR. The opposite occurs with customers whose credit risks increase during the course of their credit agreements.

- The creditworthiness of each customer is generally continuously monitored during the course of a credit agreement by using credit-scoring techniques. In essence, this involves monitoring the payment records (ie, internally held personal data) of each customer to measure how well they have kept up with their payments. Some credit providers supplement this internal data with downloads of 'fresh' credit reference data. Diversified providers of financial services combine both credit and debit account data to gain a fuller picture of their customers' financial situation (eg, details of income), so as to ensure that lending decisions are made on the basis of as much information as is available. Often, such providers calculate shadow limits.

- Existing customers of diversified credit providers may be approved for further credit products on the basis of their credit scores, even if no credit reference data is accessed in making this decision. Such decisions are made only when the size of the loan is small relative to the customer's income and the customer's own credit score is sufficiently high.

As noted above, Article 9 would be unlikely to change significantly the practices used at present to assess the ability of customers to meet their obligations under a credit contract. However, in cases of litigation, the burden of proof under Article 9 would be likely to shift from the borrower to the credit provider—ie, from the customer having to prove that the credit provider lent irresponsibly, to the credit provider having to prove that it indeed lent responsibly.

In such a situation, the party with full information about their ability to pay (the customer) would bear no responsibility for their decision to take on a loan, while the party with inferior information (the credit provider) would bear full responsibility for its decision to provide a loan. A possible consequence of this imbalance between information and responsibility is moral hazard: consumers may consider taking on an excessive level of debt in the knowledge that the lender could be held liable for possible negative consequences.

4.3.3 Responsible lending provisions in Belgium

The Belgian law on consumer credit[28] contains provisions on responsible lending and duty to advise (the provision on duty to advise is analysed in section 4.4). Article 11 of the Belgian consumer credit law obliges the credit provider to provide the customer with information on the credit agreement and to advise the customer on the most appropriate product. Article 15 states that, where the credit provider concludes a credit agreement, it is assumed to have assessed whether the customer can reasonably be expected to discharge their obligations under the agreement. Both articles are very similar to the respective articles in the CCD on responsible lending and duty to advise. Belgian court decisions in which these provisions are applied can therefore give an indication of how these provisions could be interpreted in other Member States.

Belgian court cases indicate how judges tend to interpret the provisions on duty to advise and responsible lending.[29] First, the judge assesses whether the credit provider has obtained the required information for assessing the customer's financial position. If certain elements of information (such as income) have not been requested, the judge may decide that the credit provider has not complied with the rules and should therefore be held liable for the financial consequences. In order words, credit providers are obliged to keep an audit trail of the credit relationship in order to be able to prove that they asked for the required information. Consumers are obliged to provide the information asked for by the credit provider. However, the obligation does not go so far that the customer is obliged, on their own initiative, to provide any additional information that might be relevant. Credit providers also need to keep records of their advice and whether the customer decided to act upon it.

Second, if the credit provider has asked for the required information, the judge will assess whether 'a normal prudent and reasonable credit provider in the same factual circumstances would have provided the customer in question with credit.'[30] It is up to the judge to give a further interpretation to this. The court decisions do not show that the judges carry out an in-depth economic analysis of the financial position of the customers in question at the time the credit agreement was signed. In other words, the standards applied by judges may deviate from a strict economic assessment of the financial position of potential customers undertaken by credit providers. This may create further uncertainty which credit providers will have to take into account in their lending policies. The court cases also indicate that certain situations (in particular, the fact that the intention for the credit facility was to pay off another loan) must make the credit providers extra cautious in providing credit.

[28] Loi du 12 juin 1991 relative au credit à la consommation.

[29] See, for example, court case *Vred. Sint-Niklaas* (2nd K.), March 28th 2001. Other relevant Belgian court cases addressing the provisions on responsible lending and duty to advise can be found in the 'Annual Report on Credit' of the Belgian organisation, Observatoire du Crédit et de l'Endettement.

[30] See Straetmans, G. (2001), 'Commentaar op de zaak Vred.Sint-Niklaas (2nd K.)', March 28th.

4.3.4 Economic effects

The experiences in Belgium provide an indication of how the responsible lending provision could be interpreted in court cases. The economic effects of Article 9 would be likely to be as follows.

- Credit providers would incur compliance costs through the need to upgrade their systems to hold an audit trail of all credit assessments carried out. Without an audit trail it would be difficult to prove compliance with responsible lending principles.

- The availability of consumer credit in general, and especially to consumers with low credit ratings (ie, those in the sub-prime market, those with low and/or irregular income, the self-employed and recently arrived foreigners), may be restricted further. The shift in burden of proof from borrower to lender may increase the likelihood that, in court cases, lenders would be held liable for the financial consequences of credit provided to borrowers who ended up in financial difficulty. Alternatively, lenders may increase their level of write-offs rather than risk litigation. To the extent that lenders would be unable to recover all of their costs (either because of litigation or an increased level of write-offs), the effective cost of providing credit to customers with low credit ratings would increase. In some cases, the expected loss as a result of the risk of irrecoverable costs may outweigh the profit to be made from a loan, in which case certain borrowers, in particular those with low credit ratings, would not be able to access credit. As discussed in section 2, this could result in financial exclusion among certain categories of consumers, in particular low-income consumers.

- The reduction in the availability of credit to those with low credit ratings would have the additional opportunity cost that credit providers would be prevented from expanding into the sub-prime market.

- Throughout the entire credit market, the risk of litigation would increase the cost of providing credit. Additionally, if the moral hazard caused by Article 9 increased default rates then interest rates for certain consumers would rise further.

- Article 32 of the CCD allows Member States to impose penalties on credit providers that fail to comply with the provisions of national legislation implemented pursuant to the Directive. This may further add to the potential risks and costs faced by credit providers.

- The present ‘self-certification’ schemes through which self-employed consumers are able to access credit would be threatened by Article 9. The whole rationale for ‘self-certification’ is that access barriers to consumer credit are lowered, thereby reducing the costs that entrepreneurs face. Lending to the self-employed on such a basis, in spite of being undertaken at present on a prudent basis, may not be legally deemed responsible.

- It is unlikely that the reduction in the availability of credit to those with low credit ratings would lead to any fall in the demand for credit. A consequence of such consumers being unable to draw on credit from legitimate sources would be an increase in the reliance on illegal credit providers (‘loan sharks’) and a

concomitant rise in the occurrence of usurious credit contracts and the social problems they cause.

Overall, the Directive lacks balance between the responsibilities of lenders and borrowers. Although Article 9 appears to be aimed at preventing credit providers from allowing consumers to borrow excessively, in light of the range and pervasiveness of responsible lending practices in the UK at present, it would do little to improve the present outcome. As explained in section 2, the principle of responsible lending is unlikely to address the problem of overindebtedness. By contrast, the requirement for credit providers to prove 'responsible lending' may unnecessarily result in wasteful litigation from customers who have defaulted, and may contribute to the financial exclusion of certain categories of consumers.

4.4 Exchange of information and duty to advise (Article 6)

4.4.1 Comparison of regulations

The CCA contains provisions obliging creditors to supply consumers with extensive information in advance of the conclusion of any credit agreement. These provisions are included in Sections 60–63. In light of the existing obligations on creditors, the obligations detailed in Article 6 of the Directive pertaining to the information to be provided before the conclusion of a credit agreement (para. 2) represent little change.

However, the requirement in Article 6 (para. 3) is for the creditor (or, where applicable, the credit intermediary) to seek to establish, among the range of products on offer:

> the most appropriate type and total amount of credit taking into account the financial situation of the consumer, the advantages and disadvantages associated with the product proposed, and the purpose of the credit.

This represents a significant addition to the responsibilities of *non-mortgage* creditors and credit intermediaries in the UK. However, for mortgage providers, the Mortgage Code obliges mortgage lenders to offer one of three levels of advice to prospective customers (ie, mortgage lenders are not obliged to provide all three levels of advice).

- *Information on a single mortgage product*—this is supplied only if the mortgage provider offers only one type of mortgage or if the customer has already chosen a particular mortgage.

- *Information of different types of mortgage*—if a mortgage provider offers a range of mortgages, a prospective customer can choose to receive information on these various mortgages. This information provision commonly takes two forms:

  - a decision tree—the prospective customer is guided through a series of questions, either in the course of a face-to-face interview, but often online, which gives information on the various mortgage products available, depending upon the preferences of the customer;
  - a full set of information on the range of mortgage products available. This can take the form of printed material, although information is often available online.

- *Advice and recommendation*—the prospective customer can elect for a detailed interview through which the mortgage provider finds out relevant financial and personal information from the customer and provides a written (and justified) recommendation of the most suitable mortgage product.

Nevertheless, it is up to the consumer to choose whether to receive advice from the mortgage lender if that mortgage lender provides such advice. In other words, there is no compulsion on the mortgage lender to provide advice unless that mortgage lender makes such advice available and is requested by the consumer to provide it.

4.4.2 Economic impact assessment

At present, there is no specific duty to advise on consumer credit in the UK. However, all providers of credit (with the exception of overdrafts) are obliged to provide certain information (as specified in the CCA) about the obligations and repayments imposed by a credit agreement, in advance of the conclusion of that agreement.

Additionally, the proposed FSA regulations on Mortgage Lending[31] put forward a series of provisions similar to those included in the Directive. The most significant of these include:

- a requirement for advertising to be fair, clear and not misleading;
- detailed specifications of the information to be provided to consumers in the course of negotiating and concluding a mortgage credit agreement. This includes example payment schedules, disclosure of all costs, the APR and the total amount paid;
- an obligation to undertake responsible lending by providing credit only after consideration of a customer's ability to repay, and to be able to show this by means of an audit trail. Significantly, the draft regulations specify that the requirement to undertake responsible lending should not preclude mortgage credit providers from carrying on legitimate self-certified lending;
- a prohibition on the use of the Rule of 78 in calculating the rebate due in cases of early repayment; and
- a cooling-off period of seven days for mortgages that are not used for the purpose of purchasing land or property. Mortgage renewals and bridging loans are excluded from this provision, however.

Significantly, the proposed regulations would *not* require mortgage credit providers to:

[31] FSA (2001), 'The Draft Mortgage Sourcebook, including Policy Statement on CP70', Consultation Paper CP98, June.

- vary the interest rate in line with an agreed index;
- require their customers to re-sign their credit agreements if the credit limit or the interest rate increased;
- advise potential customers on the most suitable form of credit available;
- undertake 'responsible lending' to such an extent that 'self-certification' was made impossible;
- hold all charges constant in nominal terms;
- publish to consumers a form of 'borrowing rate' or total lending rate (TLR) at any stage in the course of a credit agreement.

At present, non-mortgage providers often provide information to prospective customers in the form of literature on the range of credit products available and a 'decision tree'. However, there is no legal obligation for them to do so.

As observed above, the economic effects of Article 6 would arise almost exclusively from paragraph 3, which obliges credit providers to advise prospective customers on the most appropriate credit product. Diversified credit providers would be obliged to provide advice *between* products, taking into account the full range of credit products they offer. Additionally, within any single product range, credit providers would then have to provide advice on the most appropriate product type (for instance, between a credit card with a higher APR and an interest-free period of one month, and one with a lower APR but no interest-free period). The likely economic effects of these requirements are outlined below.

- The provision of advice is an expensive activity for credit providers. While the sums of money being lent through mortgage contracts are relatively large (making the provision of advice arguably more important), consumer credit contracts normally involve much smaller amounts. If Article 6 were interpreted as obliging credit providers to undertake the same advisory process for all forms and amounts of credit then a flat cost would be imposed on each credit contract. At the smaller end of the scale, the cost of providing any given form of advice would be higher as a proportion of the overall cost of the credit.

- Credit providers that offer several types of credit product would have to provide more detailed advice than those offering only a few. Therefore, diversified credit providers would be under competitive pressure (ie, from monoliners) to reduce and rationalise the range of credit products available. This reduction in the range of products would take two forms:

  – fewer types of credit product;
  – less scope in the product offering within each product type.

  This would therefore reduce consumer choice, as the range of available credit products would be smaller.

- If a customer did not follow the advice provided, it is likely that credit providers would need to update their internal systems in order to be able to keep a record of any advice given and to record officially whether that advice had been followed (especially in light of the responsible lending provisions). This would impose further costs on credit providers.

- Marketing would be made more difficult, as the promotion of a particular product might conflict with the actual advice that the credit provider would be obliged to provide.

- If Article 6 were interpreted as requiring credit providers to undertake face-to-face interviews with prospective customers, this would discriminate between credit providers with branches and those without branches. In particular, this would impose a large burden on Internet, direct mail and telephone-based credit providers, which currently do not incur the costs of operating via retail premises. This would reduce the scope for providers using such technology to apply the maximum competitive pressure in the market in the future. Significantly, the Internet is likely to be one of the main channels through which the cross-border selling of credit facilities will develop.

- Article 32 allows Member States to impose penalties on credit providers that fail to comply with the provisions of national legislation implemented pursuant to the Directive. In particular, when the duty to advise is seen in conjunction with Article 9 on responsible lending, this may add to the potential risks and costs faced by credit providers.

- Overall, the obligation to provide advice would increase the cost base of all credit providers, and (depending upon the interpretation of the Directive) Internet, direct mail and telephone-based credit providers in particular. This would increase the barriers to entry into the credit market, thereby suppressing competition.

The objective behind Article 6 can be achieved in a more efficient way. An alternative would be to maintain the present requirements to provide detailed information in advance of the conclusion of a credit contract. This would eliminate the social cost of devoting scarce and expensive resources to the provision of advice that not all consumers value or wish to receive.

4.5 Index-linking of interest rates (Article 14)

4.5.1 Comparison of regulations

Article 14 states that the borrowing rate, if variable, is only permitted to vary in line with an agreed index or reference rate until the end of an agreed period. Customers must also be informed of any change in the borrowing rate using a paper or other such durable medium.

This provision is new in the UK, where creditors have the discretion to vary all parts of the interest rate. However, the ability of creditors to change the interest rates they charge on loans independently of the base rate is subject to rules in the Unfair Terms in Consumer Contracts Regulations (1999) (UTCCRs). Specifically, under Schedule 2 (Parts 1j and 1k), it is stated that a contract term is regarded as unfair if it has the effect of:

> enabling the seller or supplier to alter the terms of the contract unilaterally without a valid reason which is specified in the contract; and
>
> enabling the seller or supplier to alter unilaterally or without a valid reason any characteristics of the product or service to be supplied.

Lenders in the sub-prime market are also subject to the OFT Guidelines for Lenders and Borrowers (which cover only secured loans to sub-prime consumers), in which it is stated that:

> If interest rates can be varied unilaterally by the lender, this should be made clear, and the manner in which and the basis upon which rates may vary should be explained.[32]

While this does not prevent creditors from changing borrowing rates at their own discretion, it represents a clear encouragement to creditors to vary rates in a way that is transparent. Additionally, while these guidelines officially related to sub-prime lending, the OFT has made it clear that the 'good practice' elements are just as applicable to 'prime' loans.

4.5.2 Economic impact assessment

The requirement of Article 14 that the borrowing rate, if variable, is only able to vary in line with an agreed index presents a number of interpretational problems, specifically whether this implies that the margin over the agreed index can itself vary, and what the definition of the agreed index may be.

There are three possible interpretations of the way in which the borrowing rate must be tied to the agreed index—the borrowing rate is fixed to the agreed index:

- and the margin over that index cannot vary; or
- the margin can be varied only if necessary (ie, in relation to costs); or
- there is some flexibility to vary the margin within limits, but the scope for varying that margin is capped.

From the wording of Article 14 and the associated explanatory notes, it appears likely that the first of the above interpretations would be enforced. In effect, credit providers would have to set a borrowing rate (equal to an agreed index/reference rate, plus a margin), and vary it only in line with the agreed index, holding the margin constant for the duration of the agreement. Again, depending on the interpretation of Article 14, this may mean that credit providers are not allowed to reduce interest rates in response to competitive pressures.

The interpretation of the agreed index could be viewed in any number of ways, provided that both parties to the loan agreed on the index and the index could not be manipulated by either party according to its preferences. Examples of indices that could be used as reference rates include the Bank of England base rate and a LIBOR rate—there are several LIBOR rates according to the term of the debt.

At present in the UK, credit providers have the discretion to change the interest rates they charge on overdrafts, credit cards and flexible mortgages—eg, in response to changes in

[32] OFT (1997), 'Non-status Lending: Guidelines for Lenders and Borrowers', p. 9.

the cost of funding or in the customer's risk profile, or in response to competitive pressures. Some credit providers have placed a limit on the variation of their interest rates with respect to the Bank of England base rate. A significant proportion of mortgages are offered as 'base-rate trackers', such that the APR moves exactly in line with the base rate.[33] However, the fact that at present only around 30–40% of mortgages are taken out as 'base-rate trackers' and 50–60% of mortgages are on the basis of managed (variable) rates indicates that demand for credit products that track an index is limited.

The requirement to vary the borrowing rate according to an agreed index, and at the same time keep the margin charged constant, would cause a number of problems.

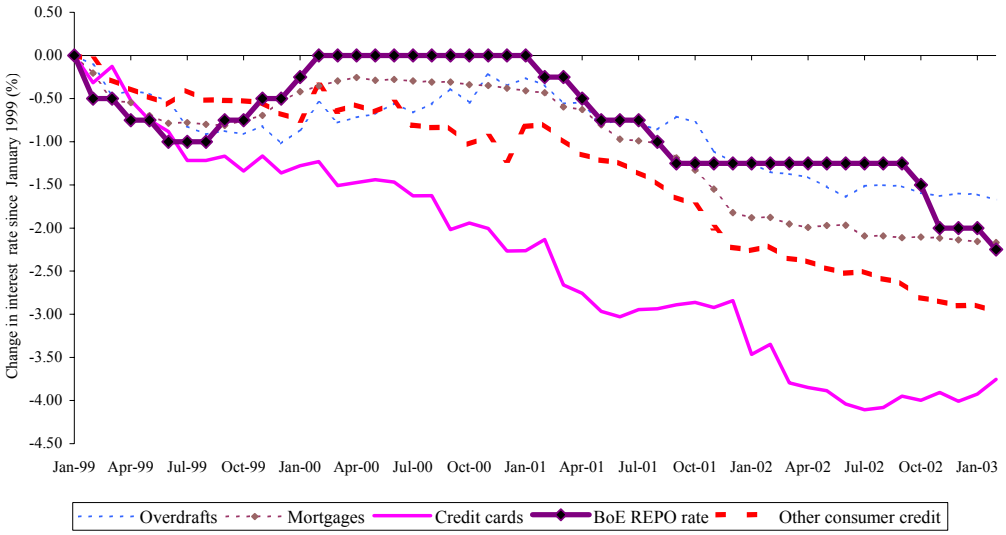
- *Risk pricing*—given that the margin over the agreed index could only be varied if the customer re-signed their credit agreement (Article 15), credit providers would have to price in a higher risk premium up front so as to take into account the probability of future increases in risk. The outcome of this would be that low-risk consumers (throughout the lifetime of a credit agreement) would pay a higher rate of interest than at present, while the rate charged to consumers whose level of risk increased throughout the lifetime of the credit agreement would be lower than at present. A cross-subsidy would take place from low-risk consumers to high-risk ones. In addition, this could conflict with the principles of the new Basel Accord which will oblige banks to increase the amount of capital they must put aside if the risk of their asset portfolio increases.

- *Competition*—if Article 14 had the effect of preventing credit providers from varying the margin on the borrowing rate (unless a new credit agreement is drawn up with, and signed by, the customer) in response to competition, then the majority of any potential benefits from (interest-rate) competition could not be passed on to consumers. At present, credit providers can reduce rates in response to demand pressures and pressure from competitors. Because of this flexibility in setting rates, the whole of the credit market is, to a greater or lesser extent, contestable—rival credit providers can reduce the borrowing rates for their existing customers in order to retain those customers. However, if the margin was fixed on existing agreements, the only scope for competition in the market would be at the margin—ie, among those consumers who were willing to switch providers (the most price-sensitive ones). Any competitive pressure resulting from switching would be prevented from being felt in the rest of the market (ie, by the consumers who are less price-sensitive and do not switch). Figure 4.1 indicates that if the cost of credit had been pegged to the Bank of England base rate (ie, to change in line with that rate) in January 1999, consumers would have ended up, on average, paying consistently more for most forms of credit than they actually paid. The effects of competition and financial innovation have therefore reduced the

[33] This is typically subject to certain provisions. In particular, if the base rate drops below a certain level, the credit provider often has the right to review and amend the margin.

cost of most forms of credit in recent years, which in turn has been consistently passed on to consumers.

Figure 4.1: Comparison of changes in the average cost of credit with changes in the Bank of England REPO rate (1999–2003)



Source: Bank of England.

Article 14 appears to be an attempt to protect consumers from the possibility that credit providers change/increase the borrowing rate (or do not decrease the borrowing rate in line with a reduction in the base rate) at the expense of consumers. Hence, by tying the borrowing rate to a base rate and fixing the margin charged by credit providers, they would no longer be able to do this. However, the above section has indicated that there are economically sound reasons for varying the margin (both upwards and downwards), and that the removal of the ability to vary the margin would result in a real cost and a significant reduction in competition.

Moreover, from an economics point of view, obliging credit providers to link variable borrowing rates to an agreed index is not necessary. The ability for credit providers to increase the margin (either by actively raising the borrowing rate or by not following it when base rates decline) will be limited by the ability of consumers to switch to other, more competitive, credit providers. Furthermore, credit providers would be under competitive pressure to minimise their costs in providing loans—these costs may not necessarily vary in line with any 'neutral' base rate. In sum, as long as consumers are not tied into a credit agreement—ie, they have the possibility to repay their loan before the end of the agreed period—there is no need to oblige credit providers to link the borrowing rate to an index. Competition will drive prices towards costs.

Empirical evidence indicates that the rate of switching and the ease with which consumers can switch in the credit market is high. The need for Article 14 is therefore questionable. The average duration of a mortgage agreement is around four years, implying that consumer can easily switch mortgage provider. Switching credit-card providers also appears to be straightforward. A customer survey on switching in different

industries, including the credit-card industry, shows that credit-card holders find switching easy.[34] Of the credit-card holders surveyed, 95% were aware of the possibility of switching, 17% had switched and 19% had considered switching but decided not to. Most credit-card holders switch for 'positive reasons' (ie, they can obtain a better price or product from an alternative provider). This is consistent with another finding of the survey—ie, that the reasons for not switching are also positive (ie, customers are happy with their current provider). Furthermore, the survey shows that information about alternatives and price comparison is not considered a problem.

A study commissioned by the Credit Card Research Group confirms that credit-card holders show significant rates of churn—30% of those surveyed had changed their existing card portfolio in the past year (including those who acquired a card for the first time).[35] Of these, 9% cancelled a credit card and replaced it with another. The key factor in driving churn appears to be interest rates—this is down to borrowers seeking better credit terms. Loyalty and existing banking relationship were not found to be important factors in the process of deciding on a new or replacement card.

4.6 Restrictions on pricing/unfair contract terms (Article 15)

4.6.1 Comparison of regulations

Article 15 sets out a specific list of contract terms that would be considered unfair. This article represents a more specific application of the more general unfair contract rules set out in the EC Directive on Unfair Terms in Consumer Contracts 1993, and brought into UK legislation in the UTCCRs 1999.

Article 15a would prevent credit providers from requiring consumers to invest, as surety, part or all of any money that they have borrowed in a deposit account, securities, or other financial instruments unless the rate paid on such investments is equal to the agreed APR of charge (ie, that charged on the loan).

Part 3 of the interpretation of the UTCCRs by the OFT indicates that such arrangements, as described in Article 15a, are already likely to be considered unfair. This relates in particular to Group 18a: Allowing the supplier to impose unfair financial burdens—in particular, 'any kind of term which allows the supplier to impose an unexpected financial burden on the consumer gives rise to concern.'

Article 15b would prevent a credit provider from obliging consumers to enter into another contract with it, a credit intermediary or third party upon conclusion of a credit agreement, unless the cost of the other (obligatory) contract was included in the total cost of the credit.

[34] OXERA and BMRB International (1999), 'Customer Switching Survey; Data Tabulations', November. The survey was carried out among 1,000 UK households.
[35] Credit Card Research Group (2001), 'Towards a Cashless Society: Consumer Attitudes to Payment Cards', April.

The statutory definition of the APR in the UK—in the Consumer Credit (Total Charge for Credit) Regulations 1980—obliges credit providers to include in the APR *all* of the costs that the consumer will face having concluded a credit agreement. Moreover, the OFT has interpreted the existing provisions of the UTCCRs to prevent credit providers from offering payment protection insurance (PPI) as an optional extra when taking out a loan, and then advertising a discounted APR.[36] In this case, credit providers only advertised the discounted rate as the APR, where a higher rate would have been payable by those consumers who did not wish to take out the PPI. The OFT instructed creditors to:

> [make] clear in advertisements and other promotional material whether or not PPI is optional, and the costs of the PPI. Borrowers should be given sufficient information to be able to compare the costs of loans with or without PPI.

In light of this, it is unlikely that Article 15b would change the regulation of consumer credit in the UK.

Article 15c specifically prevents credit providers from varying any part of the total cost of credit other than the borrowing rate. Contractual costs, indemnities and other charges cannot vary during the term of the contract unless another contract is drawn up. Present UK legislation gives credit providers the discretion to change all aspects of the borrowing rate. However, as indicated in section 2.5, under the UTCCRs a contract is deemed to be unfair if it has the effect of 'enabling the seller or supplier to alter the terms of the contract unilaterally without a valid reason which is specified in the contract'. Hence, while it is not forbidden to increase other charges aside from the borrowing rate, credit providers are limited in their ability to do so. In practice, charges are varied to reflect genuine changes in the cost base faced by credit providers. Competition serves to curtail the ability of credit providers to increase charges without regard to costs.

Therefore, Article 15c would represent a new restriction on the ability of creditors to change the charges on credit.

Article 15d would prevent credit providers from introducing 'rules on the variability of the borrowing rate that discriminate against the consumer'. This adds to the provisions in Article 14, placing restrictions on the use by credit providers of indices and calculations of the borrowing rate on the basis of those indices. While the meaning of 'variability that discriminates against the customer' is unclear, it is nonetheless a further explicit addition to the current UK regulations. Notwithstanding this, the UTCCRs, taken as a whole, are likely to have a similar effect already.

Article 15e would prevent credit providers from introducing a variable borrowing rate that does not relate to the initial rate advertised and put forward in the process of concluding the credit agreement. This seeks to prevent a situation in which they would advertise a discounted rate, only to add a much higher cost base that was also subject to

[36] OFT (2000), 'Discounted APRs and PPI', OFT 299, February.

rules on variability. Advertised rates must therefore show the whole cost base and not include the effect of discounts.

This explicit formulation on the presentation of the cost of a loan is new to UK legislation. However, the CCA already requires advertisements to '[convey] a fair and reasonably comprehensive indication of the nature of the credit or hire facilities offered by the advertiser and of their true cost to persons using them'. All of the costs of a loan must be set out clearly (and included in the APR calculation) before a credit agreement is concluded. Furthermore, the UTCCRs state that a contract is unfair if it has the effect of 'irrevocably binding the customer to terms with which he had no real opportunity of becoming acquainted before the conclusion of the contract'. Recently, the OFT has enforced the rules on the advertising of introductory APRs by credit-card companies, thus preventing them from advertising introductory rates as APRs and advising instead that a temporary interest rate cannot be called an APR.[37] It is therefore unlikely that provision 15e would add significantly to the existing regulations in the UK.

Article 15f would have an effect primarily on lease-purchase and hire-purchase-type payment plans—in particular, those known as 'balloon agreements'. The effect of Article 15f would be to prevent a credit provider from obliging its customers to use them (the same credit provider) to refinance balloon payments, if they required such re-financing. In the UK, current regulations allow for balloon payments to be arranged as part of a credit agreement under which consumers are obliged to use the same creditor in order to refinance the balloon payment. While Article 15f would be a new form of regulation in the UK, its interpretation is not clear. It is therefore unclear what effect Article 15f would have in the UK.

Limitations on the *level* of the interest rate to be paid under a credit agreement are imposed loosely through rules on 'Extortionate credit bargains' (Articles 137–40 of the CCA). Under these rules, a court may reopen a credit agreement and impose fairer conditions (rates) if a credit agreement is found to be 'extortionate'—ie, if it requires the debtor or a relative of the debtor to make payments (whether unconditionally, or in certain contingencies) that are grossly exorbitant; or otherwise grossly contravenes ordinary principles of fair dealing. However, these rules require a considerable amount of legal interpretation and, as such, are likely to be difficult to use legally in all but the most usurious of cases. Article 15 will not have a significant impact on these rules, as it concentrates on specific practices rather than the level of the interest rate charged to consumers.

4.6.2 Economic impact assessment

The main significant change to the regulation of terms in credit contracts would arise from Article 15c of the Directive. This would prevent credit providers from varying any part of the total lending rate other than the borrowing rate. Hence, charges associated with

[37] OFT (2002), press notice 10/02, February.

the credit agreement (such as those relating to customer records, management fees, cash-handling fees, administration fees, and non-payment fees) would have to be kept constant in nominal terms.

At present, credit providers of all credit products are able to change charges within the provisions of the UTCCRs. If a credit provider faces a genuine increase in costs, it is allowed to increase its charges. In effect, the current regulations leave it to competitive pressure to make sure that prices remain close to costs. Without the ability to change their costs, credit providers would be faced with a number of problems.

Confronted with changing costs through increasing staff and property rental costs on the one hand and decreasing costs through innovation on the other, it is necessary for credit providers to be able to change their prices (subject to competition) to reflect underlying changes in the costs of their inputs. Under Article 15c, charges for existing customers could only be changed if the customer re-signed the credit agreement. However, this would be costly and therefore likely to be avoided. Credit providers would therefore only practically be able to change the rate of their charges for new customers and existing customers who decided to switch or re-sign (both of which would incur processing costs).

As with Article 14, the dynamic effect of credit providers being obliged to hold their charges constant in nominal terms is that competition between credit providers would be suppressed. Any credit providers that improved the efficiency of their management processes could not pass on the resulting cost savings in lower charges to existing customers.

From an economics point of view, it is questionable whether Article 15c is necessary. While Article 15c appears to be aimed at preventing credit providers from increasing their charges once a credit agreement has been signed, to the extent that a customer is not tied to an agreement (ie, see section 3.5.3 for evidence), that customer is free to switch credit provider.

4.7 Re-signing of credit agreements (Articles 10, 15 and 34)

4.7.1 Comparison of regulations

Articles 10, 15 and 34 of the Directive would oblige creditors and guarantors to ensure that both future and (after the enactment of the Directive) existing credit and surety agreements were re-signed if the amount of credit granted or guaranteed increases. Additionally, all existing open-ended credit agreements and surety agreements would have to be re-signed within two years of the Directive coming into force. This would have a particular effect on credit cards, store cards and overdraft facilities.

Under current UK regulations, any increase in the level of credit granted or the amount guaranteed results in an obligation on the creditor only to give notice to the consumer that such a variation in the credit agreement will occur. There is no compulsion for the credit or surety agreement to be re-signed. The articles therefore represent a significant addition (in terms of impact—see below) to the current set of regulations in the UK. The requirement for all existing open-ended credit agreements to be re-signed within two years of the implementation of the Directive would also, in effect, result in a ‘one-off’ obligation and a ‘one-off’ compliance cost.

4.7.2 Economic impact assessment

In the UK at present there is no requirement to have a credit agreement re-signed (in effect cancelled and restarted) if any aspect of that credit agreement is altered. Instead, credit providers are obliged to give their customers due notice of any such changes. With regard to credit cards and overdrafts, it is common practice to increase credit limits (and decrease interest rates) for customers who demonstrate a low-risk profile. In such cases, the credit provider informs the customer by post of the change in the conditions of the credit agreement. This is consistent with the 'start low and then grow' practice followed by most credit providers.

It is common practice for credit providers to arrange increases in credit and overdraft limits over the telephone at the request of their customers. For instance, if a customer reaches their credit limit while shopping, they may phone their bank to arrange a credit-limit increase in order for a payment to go through. To be able to provide this facility, many credit providers calculate shadow limits.

In contrast to such a flexible approach to changes in the terms of credit agreements, Articles 10, 15 and 34 would require any changes to the terms of a credit agreement to be able to take place only after the affected customer had re-signed the credit agreement. The effects of these articles would be as follows.

- Getting a customer to re-sign a credit agreement would generate costs for the production of a new agreement and sending it to a customer (with a freepost envelope). In addition, extra costs would be generated by customers phoning with queries about the credit agreement.

- The experience of credit providers suggests that the response rate to postal communications is very low. When new credit agreements are sent to be signed by the customers, only about 50% are returned. The response rate to marketing mail is often as low as 2–3%. Therefore, if credit agreements had to be re-signed in the event of a change in conditions, it is likely that the majority of consumers would not return the agreement. The agreement may be forced to lapse (causing inconvenience to both the consumer and the credit provider), or, if this does not occur, the credit provider would be prevented from changing the conditions of the agreement. Either way, further costs would result until the agreement was either re-signed, cancelled, or the credit repaid.

- Given the cost of re-signing credit agreements, credit providers are likely to react by making changes to the conditions of credit agreements less regularly (in particular, where these are beneficial to consumers, for instance the regular increases in credit limits to low-risk consumers). Furthermore, credit providers would be under competitive pressure to provide new customers with credit limits as high as possible in order to reduce the costs of future increases in their credit limits. This runs counter to the sense of Article 9 on responsible lending.

- For the majority of consumers who are fully able to cope with their credit repayments and with the obligations posed by an increased credit limit, the requirement to re-sign their credit agreements when changes are made (particularly to credit limits, as described above) will be a serious inconvenience.

Set against the above costs, there might be an advantage for some consumers. Because they would be provided with more details of their repayment obligations, they would be more aware of the amount of expenditure they were devoting to debt repayments and may, in turn, be less likely to take on debt to such a level that they become at risk of default. However, the number of people who will benefit from this is likely to be small. As explained in section 2, overindebtedness is caused by many factors other than simply the intentional over-accumulation/provision of debt. Moreover, credit-limit increases are generally small and based on an assessment of the customer's behaviour and risk profile (ie, to calculate shadow limits), which itself reduces the risk that consumers take on too much debt.

4.8 Joint and several liability (Article 19)

4.8.1 Comparison of regulations

The joint and several liability provision in Article 19 of the Directive is similar to the provision in Section 75 in the UK CCA 1974[38]—the main difference being that, in the UK, there does not need to be an exclusive link between the creditor and the supplier of goods and services—and covers retailers supplying credit in the form of a credit card. Article 19 of the Directive makes clear that if the supplier of goods or services has acted as credit intermediary, the credit provider and the supplier shall be jointly and severally liable. The definition of the term 'credit intermediary' is restrictive and does not cover retailers supplying credit-card credit. However, store cards, or, for example, a retailer offering credit from a brand-related credit institution, are included in this definition.[39] The main implication for the UK is that credit cards will no longer fall under the joint and several liability provision.[40]

4.8.2 Economic impact assessment

The effect of Article 19 will be to save credit-card issuers the costs they incur currently as a result of Section 75 of the CCA (joint and several liability). While credit-card providers would no longer have to cover irrecoverable costs on their customers that arise from retailers (in the case of bankruptcy, etc), they would also be relieved of the burden of paying for consequential losses. Under the present rules, it is not solely the cost of the purchased item for which the credit-card provider is liable, but also any losses arising from the correct use of that item, if it is faulty.

It is possible, under Article 19, that competition may encourage credit-card issuers to continue to offer some form of joint and several liability protection.

[38] The implications of Section 75 are explained in OFT (2000), 'Consumer Credit Act 1974 Section 75—Equal Liability', June.

[39] See European Commission (2002), 'Questions and Answers on Consumer Credit', November, Memo/02/252.

[40] However, the Commission is also drafting a proposal on payment systems which, according to the Commission, will include 'refund' mechanisms for non-cash means of payment, including credit cards.

4.9 Definition of credit intermediaries to include affinity partners (Article 2)

4.9.1 Comparison of regulations

Article 2 of the Directive would extend the definition of 'credit intermediary' to include affinity partners and co-branded partners. These are essentially firms that carry out some other trade (commonly football clubs and charities, and, in the case of co-branded partners, mainly retailers), but offer or endorse consumer credit that is supplied and administered by a separate creditor. The link between the affinity partner and the consumer is minimal, as the actual business of providing the credit is the sole responsibility of the creditor. The most common credit products provided under affinity arrangements are credit cards and personal loans.

At present, typical affinity partner arrangements in the UK do not require the affinity partner to register as a provider of financial services. Credit providers (ie, credit-card or personal-loan providers) make credit facilities available to consumers and look after all of the administration of the credit accounts. In effect, there is no direct link between the consumer and the affinity partner. The link between the credit provider and the affinity partner is limited in scope. In exchange for the use of the affinity partner's brand, the credit provider makes payments to that affinity partner. Consumers do not pay the affinity partner directly. Additionally, the credit provider is provided with access to its affinity partner's customer lists for marketing purposes.

Article 2 require affinity partners to comply with consumer credit regulations in the UK for the first time. Affinity partners would need to be licensed and credit-card providers would have to provide them with a copy of each credit agreement they entered into in association with the credit-card provider.

4.9.2 Economic impact assessment

The requirement for affinity partners to be licensed and provided with a copy of each credit agreement entered into in association with credit providers would place significant costs on such organisations. This would be most keenly felt in the charities sector, which undertakes affinity credit arrangements as a way of raising money and encouraging loyalty from donors—hence any increase in costs would reduce the amount of money available for charitable purposes.

Furthermore, because affinity partners in the UK do not undertake any financial management role in respect of the credit agreements in place, the requirement for them to be provided with a copy of each (relevant) credit agreement would appear to be contrary to the sense of Article 7 (data protection).

It is difficult to determine the purpose of including affinity partners within the definition of credit intermediaries. Neither consumer protection nor the scope for competition would be increased by having affinity partners comply with the Directive.

4.10 Right to withdrawal and cooling-off (Article 11)

4.10.1 Comparison of regulations

Article 11 of the Directive deals with the consumer's right to withdraw from a credit agreement. This is primarily relevant for credit products that involve the provision of an agreed amount of credit under negotiated terms that is to be paid back under an agreed

payment schedule. Although credit cards, store cards and bank overdrafts would also be affected by this article, once the cooling-off period on such credit agreements had elapsed, the use of such forms of credit would be a way of avoiding the inconvenience of the cooling-off period in connection with purchase-specific credit agreements.

Paragraph 1 states that the time in which the withdrawal can take place (the cooling-off period) would be set at 14 days. In the UK, Section 67 of the CCA defines cancellable agreements (as relevant for this analysis) as those that are not signed on the creditor's premises, the premises of the negotiator or the premises of any party to a linked transaction. Essentially, this means that an agreement is cancellable if it is signed outside of the premises of the creditor or the provider of the goods if the provider negotiates the terms of the credit or provides the credit. In addition, overdraft agreements are explicitly exempted from the coverage of the provisions on cancellable agreements. For those arrangements that are cancellable, Section 68 of the CCA defines the length of the cooling-off period as five days following the consumer's receipt of a copy of the executed agreement or of the notice informing the consumer of the right to cancel. However, in cases in which the Director General of Fair Trading has waived the requirement on the creditor to send a copy of the agreement by post within seven days of the conclusion of the credit agreement, the cooling-off period is set at 14 days.

For credit agreements that are not defined as cancellable (including all overdraft agreements), no cooling-off period is currently provided for.

The new Directive would effectively increase the cooling-off period on all cancellable credit agreements from five to 14 days. More importantly, it would provide for a cooling-off period of 14 days on credit agreements that are not currently defined as cancellable, as well as overdrafts (for which the present exemption would be abolished). However, OFT guidance[41] advises that either party normally has the right to cancel a credit agreement.

Paragraph 2 states that the consumer must inform the creditor using paper or some other durable medium of the consumer's decision to withdraw from the agreement within the cooling-off period. This reflects current practice in the UK, but could prevent the full development of 'electronic signatures' for use in the provision of Internet-based financial services in the future.

Paragraph 3 clarifies the amount of interest the consumer must pay on borrowings when they withdraw from the agreement. It states that the consumer shall pay interest due for the period during which the credit was drawn and that the interest shall be calculated on the basis of the agreed APR of charge. Additionally, the consumer is obliged to return to the credit provider any money or goods received as a result of concluding the credit agreement.

[41] OFT (2001), 'Analysis of Unfair Terms in Schedule 2, Unfair Contract Terms Guidance', February.

As the UK regulations currently stand, under Section 71 of the CCA, the consumer does not pay interest if they repay the credit (under the terms of a cancellable agreement) before the expiry of one month following service of the notice of cancellation. The OFT does not object to financial penalties for the cancellation of agreements. It states that, where the cancellation is the fault of the consumer, the credit provider is entitled to hold back from any refund of prepayments a sum of money judged reasonably sufficient to cover either the net costs or the net loss of profit resulting directly from the default. Section 70 of the CCA states that a maximum of £5 of any fees or commissions paid to a credit broker may be held back from the customer—all other brokerage fees and commissions must be repaid.

The Directive would remove the credit provider's right to claim any indemnity from the consumer in connection with withdrawal (other than any interest due on the loan in the time preceding withdrawal), and confirms that any downpayment must be returned to the consumer without delay.

4.10.2 Economic impact assessment

At present in the UK, the only credit contracts to which a right of withdrawal/cooling-off period applies are 'cancellable' agreements. These, and 'non-cancellable' agreements, are described above. The present length of the cooling-off period is either five or 14 days, depending on the type of contract in question.

It is therefore common practice in the UK for consumers to arrange a credit agreement (eg, a hire-purchase or personal-finance agreement) in order to purchase goods from a retailer, at the premises of the retailer. Because no cooling-off period applies to such credit agreements at present, any goods purchased are available for immediate consumption.

Article 11 of the Directive, by introducing a right of withdrawal on *all* credit agreements for a period of 14 days after conclusion/purchase, would make it problematic for the majority of retailers/credit providers to allow their customers to arrange a credit agreement and take delivery of their goods within the cooling-off period. The fact that retailers/credit providers would have to reimburse their customers for the full value of the purchase if the credit agreement were cancelled (and the goods returned) within the 14-day cooling-off period would leave them exposed in effect to having to 'buy back' second-hand goods where their resale value was significantly lower than their new value. For instance, this applies particularly to auto and white goods retailers.

For retailers providing credit at the point of sale, the cooling-off period would cause difficulties in terms of managing the level of stock/inventory required. Retailers currently running 'lean' inventory systems would be forced to hold onto and insure purchases prior to their release after the cooling-off period had elapsed. Alternatively, they would be required to introduce artificial delays in the order management system so as to allow the cooling-off period to elapse prior to the delivery of the purchased goods to the consumer.

In Ireland, such provision for a cooling-off period already exists. Importantly, there is also the opportunity for consumers to waive their right to a cooling-off period if they wish to take delivery of their purchased goods within the cooling-off period. However, under Article 30 of the Directive, consumers would not be able to waive any right conferred to them under the Directive, and so would be forced to wait 14 days for the delivery of goods purchased under a credit agreement.

This would cause great inconvenience for consumers and may distort the present pattern of credit use away from hire-purchase agreements and retail loans to pre-approved forms of credit, such as overdrafts and credit cards (which could arguably be considered not to be the most appropriate credit product for the purchase of a car, for example) provided that the cooling-off period following the conclusion of credit agreements relating to such products had expired. It should be noted that, in the UK, much point-of-sale credit is offered on interest-free or subsidised terms, subject to the status of the borrower.

Article 11 appears to be aimed at 'protecting' consumers from making purchases via purchase-specific credit agreements from which they might later wish to withdraw. To the extent that consumers buy 'excessive' (ie, leading to financial distress or default) amounts of goods on uncancellable credit arrangements, then Article 11, by allowing consumers 14 days to reconsider their situation, may reduce the occurrence of such levels of borrowing. However, to the extent that consumers can avoid the cooling-off period by borrowing on credit cards, via overdrafts or flexible mortgages for which the cooling-off period had already expired, Article 11 will not be effective. Furthermore, for the large majority of consumers who are able to cope with the obligations resulting from the credit agreements they conclude, the 14-day cooling-off period will be a substantial inconvenience.

4.11 Early repayment provisions (Article 16)

4.11.1 Comparison of regulations

Article 16 of the Directive would provide consumers with the right to early repayment of debt, either in part or in full. This same right currently exists and is set out in Section 94 of the CCA. The difference between the two legal provisions lies in their specification of the methods to be used to calculate the level of rebates and early repayment penalties.

On the one hand, early repayment entitles the customer to receive a rebate due to the fact that the money borrowed was held for a shorter time than specified under the credit agreement (and so should cost less to borrow).

On the other hand, as the credit provider incurs costs in setting up the credit agreement which are recovered during the full course of the credit agreement and the credit provider may face real costs in 'undoing' a credit agreement earlier than originally planned, the credit provider is entitled to reclaim these costs from customers who elect for the early repayment of a loan.

Section 94 of the CCA indicates that the debtor is entitled to a rebate on charges paid under a regulated agreement upon early settlement of their debt. In general, rebates and penalties are calculated using the Rule of 78 or on the basis of detailed calculations undertaken on an 'actual cost' basis:

- *actual-cost basis*—the exact cost of the money borrowed to the point of cancellation is calculated, along with the level of the costs that could not be recovered due to early settlement (such as the administration costs of setting up and cancelling the agreement). An early-settlement charge or cancellation penalty is then made on the basis of this calculation;

- using the Rule of 78, a method of calculating the amount owed/paid by a customer during the course of a credit agreement. Developed originally for use before the

advent of computers, it has little or no link to financial theory. Furthermore, early settlement of a relatively long-term credit agreement, particularly when interest rates are high, may result in a cancellation penalty that is advantageous for the credit provider.

A recent FLA survey indicates that 78% of lenders use some form of the Rule of 78. 22% of lenders calculate rebates and penalties using actuarial methods only.[42]

At present, the use of the Rule of 78 is defined in detail in the Consumer Credit (Rebate on Early Settlement) Regulations 1983. In addition to the use of the Rule of 78, the regulations allow credit providers to defer the settlement date in the case of early settlement by two months for credit agreements with a term of less than five years, or by one month for credit agreements with a term of more than five years. This deferral of the settlement date enables credit providers to recover some or all of the costs they face as a result of the early settlement.

Instead of introducing an early-settlement calculation according to the type of credit or borrower, the Directive proposes that the creditor be allowed to claim an early repayment indemnity, calculated on the basis of 'actuarial principles'. Unfortunately, the Directive does not define exactly what is meant by actuarial principles. However, in this section, calculation based on actuarial principles is taken as meaning that it is based on actual costs, rather than being calculated by means of estimation or rule of thumb.

4.11.2 Economic impact assessment

Article 16, by restricting the calculation of any early repayment indemnity to methods based on actuarial methods, would mean that all indemnities must be calculated on a cost basis, rather than by using the Rule of 78.

This would have no effect at all on those credit providers which already calculate indemnities on a cost basis, provided that the requirements of the Directive are met by their current systems. However, those credit providers that currently use the Rule of 78 (not only as a method to calculate settlement figures, but also as an accounting base) would incur significant costs due to the upgrading of internal systems, the retraining of staff, and the reprinting of standard credit agreements.

4.12 Introduction of a borrowing rate and total lending rate (Articles 13 and 14)

4.12.1 Comparison of regulations

Articles 13 and 14 would oblige creditors to inform consumers of the cost of credit using three differently defined rates: the APR ('total cost of credit'), the 'total lending rate' and the 'borrowing rate'.

[42] FLA (2002), 'FLA Response to DTI Consultation on Early Settlement', November.

First, they must publish a figure covering the total lending rate. This rate is the effective total cost that consumers pay for credit, with the exceptions of non-compliance charges, occasional cash charges (such as cash-handling fees on credit cards), sureties, taxes, notaries' services and registration fees. Credit insurance premia must be included in the total lending rate if the purchase of credit insurance is compulsory.

The overall APR (or the total cost of credit) then covers all the remaining costs that were excluded from the total lending rate, with the exception of charges for non-performance (ie, non-payment penalties) and charges payable as a result of particular transactions (for instance, cash-handling fees). Any credit insurance taken out at the same time as the credit agreement, even if this is optional, must be included in the overall APR. In the UK, insurance is only included in the APR if it is compulsory.

In addition to the total lending rate and the APR, creditors are obliged to publish the borrowing rate. This is defined as the interest rate payable on the credit alone. As such, it excludes all the other costs included in the total lending rate. By obliging creditors to publish two additional lending rates, Articles 13 and 14 ensure that the rules which provide that only the borrowing rate can vary, and only in line with an agreed index, can be upheld. This would, in effect, increase the transparency of credit arrangements and make the enforcement of the Directive simpler.

At present in the UK, the only requirement for creditors is to provide to consumers an APR figure that reflects the total recurring cost of credit. The Consumer Credit (Total Charge for Credit) Regulations 1980 define the total charge for credit (which must also be expressed as an APR) as including:

- the total interest payable on the credit;
- other charges payable at any time under the agreement; and
- any insurance premium, in as far as a contract for insurance is required by the credit provider under the agreement.

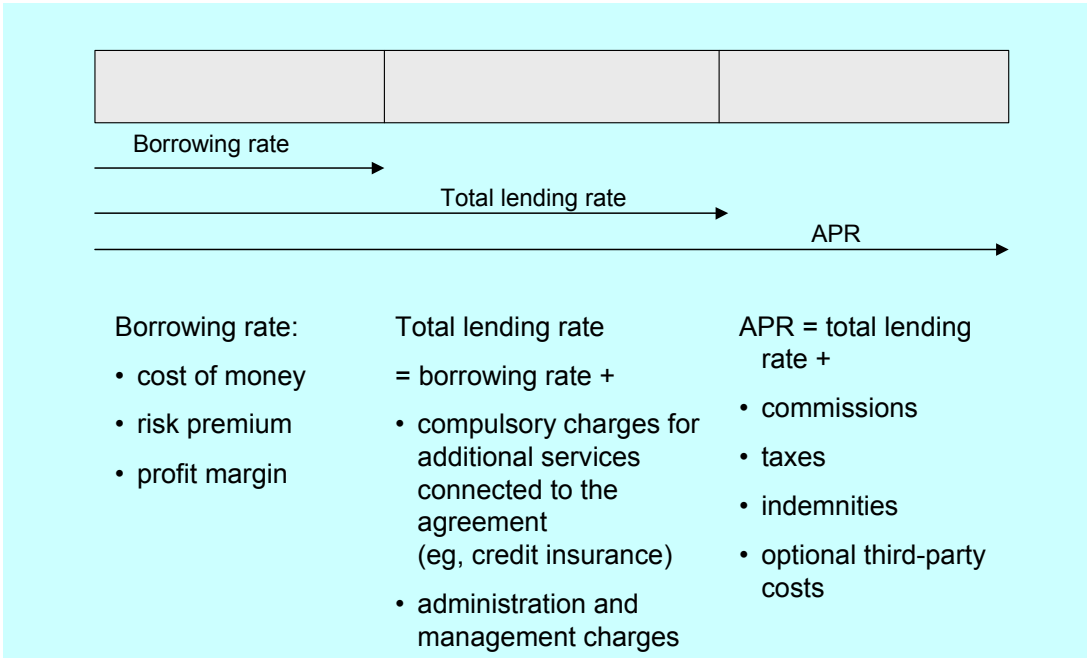
Given the discretion available to providers of credit to vary the cost of credit as they see fit, there is no requirement to publish more than one rate as the APR. Therefore, the provisions in Articles 13 and 14 that oblige the credit provider to publish two additional borrowing rates would impose additional rules in the UK. However, the requirement to include the costs of insurance in the APR if the insurance is taken out when the credit agreement is concluded would change the current rules on APRs in the UK, where only the costs of compulsory insurance must be included. This is explained in the OFT ruling (2000) on Discounted APRs and PPI (see section 4.6.1).

4.12.2 Economic impact assessment

In the UK, the common practice when advertising the cost of credit is to show an APR rate in combination with an example of the payments (amount and frequency) required during the lifetime of the agreement and the total amount to be paid, expressed as the basic retail cash price and the total amount that would be paid under the credit agreement (ie, a greater amount than the basic retail cash price).

Articles 13 and 14 would require credit providers to display, in addition to the present APR, two other rates: the total lending rate and the borrowing rate. The definitions of these rates are set out in the section above. Figure 4.2 illustrates how the three rates would relate to each other.

Figure 4.2: The borrowing rate, the total lending rate and the APR



The main effects of the introduction of the two new rates would be:

- extra costs for credit providers in calculating and printing the new rates in advertising and contractual material. Staff would also have to be trained to understand the meaning of the new rates in order to be able to explain them to consumers;

- confusion for consumers—at present, many credit providers believe that the APR is not well understood by consumers,[43] and that, if anything, the comparison of the basic retail cash price and the amount payable under a credit agreement provides a more straightforward basis for comparison. The introduction of two new rates—neither of which would reflect what the consumers would actually pay—would add further detail to the already potentially confusing APR requirements. In turn, this confusion could impair the ability of consumers to compare the rates on offer from credit providers and may therefore reduce competition.

The cost of insurance is included in the APR (total cost of credit) if it is purchased in connection with the credit agreement. This contrasts with the current rules in the UK (as

[43] Evidence on poor level of understanding of the APR can be found in PAS Business Surveys (1998), 'Consumers' Use of Credit Survey', London, report for the OFT.

noted above), under which the cost of insurance must only be included if the insurance is compulsory, and is a significant issue of concern in the UK.

The display of the two additional rates associated with a credit agreement appears not to be linked directly to the pursuance of consumer protection. Indeed, the only purpose of Articles 13 and 14 appears to be to make possible the enforcement of Article 14, para. 3 (the obligation to link the variable borrowing rate to an agreed index) and Article 15 (unfair terms). Given the problems surrounding even these measures, it is questionable whether Articles 13 and 14 are necessary at all. Moreover, the development of a single European market for credit services as a policy is unlikely to be furthered by the introduction of unnecessary complexity to consumer credit contracts.

4.13 Ban on unsolicited negotiation of agreements outside of business premises (Article 5)

4.13.1 Comparison of regulations

Article 5 of the Directive would prevent credit providers from negotiating and signing credit agreements with consumers outside of their own business premises, unless specifically asked to do so by the consumers concerned. This ban is in line with Sections 48 and 49 of the CCA and, as such, represents little significant change to the current regulation of negotiation of agreements outside of business premises in the UK.

4.13.2 Economic impact assessment

UK law bans the negotiation of credit agreements outside of business premises unless the customer specifically invites the person negotiating on behalf of the credit provider for that purpose. The definition of business premises in the UK is flexible and covers both permanent business premises (such as a fixed building or website) and temporary business premises (such as stalls in airports, shopping centres, offices and student fairs).

As it is worded, it is unlikely that Article 5 will have any significant effect on the way in which credit contracts can be negotiated on or off business premises in the UK, as it refers specifically to the circumstances in Article 1 and the Council Directive 85/577/EEC, which themselves have already been interpreted to arrive at the present rules in the UK.

Appendix 1: Modelling the Impact of the Consumer Credit Directive

A1.1 The credit channel

The credit channel is the mechanism whereby changes in the supply of credit can influence macroeconomic variables such as consumer spending. Consumers make choices about how much they would like to spend in each period given what they know about their income, their wealth, the opportunity cost of spending (ie, the forgone interest and capital gain on any savings) and the price of credit—which is the interest rate, the price of drawing upon their wealth to finance current spending.

Without access to credit, consumer spending is effectively constrained by income and liquid assets such as cash. Therefore, unexpected changes in income (the result of job losses or illness, for example) would be reflected in full in consumer spending. This can result in increased macroeconomic volatility: a ready supply of credit can help to support aggregate consumer spending when times are temporarily bad. Moreover, it leads to a loss of 'welfare': consumers typically dislike risk and would rather avoid it if they can. Credit provides them with a way of reducing risk, by letting them smooth their consumption over time, even when their income is highly volatile.

Restrictions on credit can also lead to a higher aggregate 'saving ratio'—ie, the proportion of income that is saved—for two reasons.

- First, there is always a small proportion of consumers who have just experienced a sharp reduction in their income—whether because they have lost their job or for any other reason—some of whom will have very little liquid wealth. If these consumers had no access to credit, their spending would fall in line with their income, while the level of consumption of other consumers would remain unchanged. Since there is always a proportion of consumers in this position, aggregate consumption would be lower for the same aggregate income—hence, the saving ratio would be higher.

- Second, there is always a proportion of consumers who are saving money towards a deposit on a house—money that would otherwise be spent. Credit market regulations during the 1970s and before meant that the minimum deposit as a proportion of the purchase price was far higher then than it is now. Easing of those regulations therefore allows potential first-time buyers to spend more of their income rather than saving it towards a deposit. Re-imposing these regulations would have the reverse effect. If everyone else's spending remains the same, re-imposing the credit regulations would lead to lower total consumer spending for any given level of income—hence, the saving ratio would be higher.

Restrictions on access to credit will have other effects too. Consumer spending may become less sensitive to changes in interest rates and to changes in illiquid wealth such as housing wealth—respectively, the price of credit and the amount of collateral. Moreover, reductions in the total stock of consumer debt would mean reductions in the cost to the consumer of servicing that debt, thereby increasing the disposable income available for consumption.

In this project, the credit channel was modelled in such a way as to capture all of these effects, and to be able to explore the impact on the wider economy of changing credit market regulations in line with the CCD.

A1.2 How is the credit channel modelled?

The approach used has been to embed a model of the credit channel in the OEF UK Macroeconomic Model. This model of the credit channel has three elements.

- an equation relating consumer spending to its key drivers—disposable income, unemployment, financial and housing wealth, and interest rates on secured and unsecured credit;

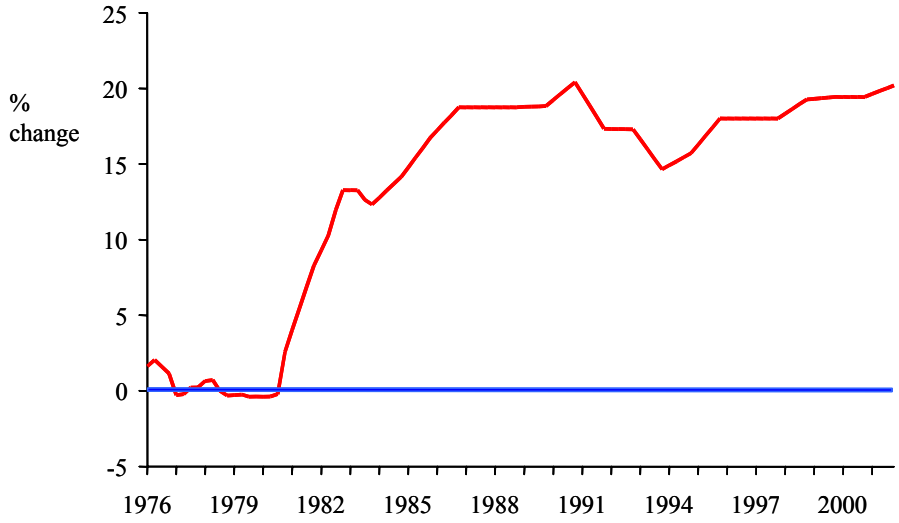
- an equation relating the stock of unsecured consumer credit to its key drivers—income, wealth, the average interest rate on unsecured credit ('own' rate), and the average interest rate on secured credit ('cross' rate);

- an equation relating the stock of mortgages (secured credit) to its key drivers—income, wealth, the average interest rate on secured credit ('own' rate), and the average interest rate on unsecured credit ('cross' rate).

An important additional element in each of these equations is a dummy variable that captures the impact of financial liberalisation (FLIB). FLIB is derived from research by Muellbauer,[44] in which it is identified as the common unexplained factor in a set of ten equations for different types of credit (see Figure A1.1). During the 1980s and 1990s, credit markets in the UK became far less heavily regulated and controlled, and consumers found it easier to access credit. The result was an increase in the stock of credit of all types, which cannot be explained simply by looking at the price of that credit or the level of demand. In effect, the supply of credit increased for any given interest rate, and FLIB is a measure of the extent to which it increased.

[44] Muellbauer, J. (1997), 'Measuring Financial Liberalisation in the UK Mortgage Market', mimeo, Nuffield College, Oxford.

Figure A1.1: Financial liberalisation



Source: Muellbauer, 1997.

For this project, FLIB has been built into both the credit equations and the consumption function. In the credit equations, FLIB appears as an 'intercept adjustment', so that a 1 percentage point increase in FLIB leads to a 1% increase in the stock of credit in the long run, if all other variables are the same.

In the consumption function, FLIB appears in three different ways.

- As an *intercept adjustment*—this means that, for any level of income, wealth and interest rates, consumer spending will be higher if financial liberalisation is more advanced. That reflects the two arguments above: potential first-time buyers do not need to save so much, and those who have just lost their job can spend more.

- *Modifying the relationship between consumer spending and housing wealth*—financial liberalisation means that consumers can use their housing wealth as collateral to secure a loan to finance consumption. As housing wealth increases, more collateral becomes available, but it will only translate into higher consumption in liberal financial markets. Thus, changes in housing wealth become more important for consumption as financial markets become more liberal.

- *Modifying the relationship between consumer spending and the interest rate*—if consumers cannot borrow to finance consumption then the price of borrowing (the interest rate) will not directly influence consumer spending in that way. As access to borrowing becomes easier with financial liberalisation, the interest rate on that borrowing becomes progressively more important for consumer spending.

The estimation results for all three equations are detailed in Appendix 2.

A1.3 What is the impact of the CCD?

The CCD will have an impact in this model by changing:

- FLIB as it affects the supply of secured credit;

- FLIB as it affects the supply of unsecured credit;
- the interest rate on secured credit;
- the interest rate on unsecured credit.

The Directive will reduce the supply of both secured and unsecured credit for a variety of reasons. A higher proportion of consumers will be denied access to credit at any price: credit rationing will bite harder than it currently does. On the unsecured credit side, this is likely to lead to a reduction of 2.5% in the total supply of unsecured credit. For secured credit, the credit-rationing effect will only apply to 'flexible' mortgages as defined in the terms of the Directive—between 20% and 50% of the total stock of mortgages. The total supply of flexible mortgages will contract by some 3% as a result of the Directive.

The Directive will also increase the interest rate charged on all credit to all consumers, again for a number of reasons. This effect will be most pronounced on the unsecured credit side, where the impact will be to increase the average interest rate by between 0.7 and 1 percentage points. On the secured credit side, the interest rate on flexible mortgages will increase fractionally, by between 0.05 and 0.075 percentage points.

The impact on the average interest rate on unsecured credit appears large. However, the unsecured-credit rate is high and volatile, and the spread between it and the LIBOR has decreased by a similar order of magnitude over the past few years. A change of this order is not unusual by historic standards.

A1.4 Scenarios

Three scenarios for the possible impact of the CCD have been explored.

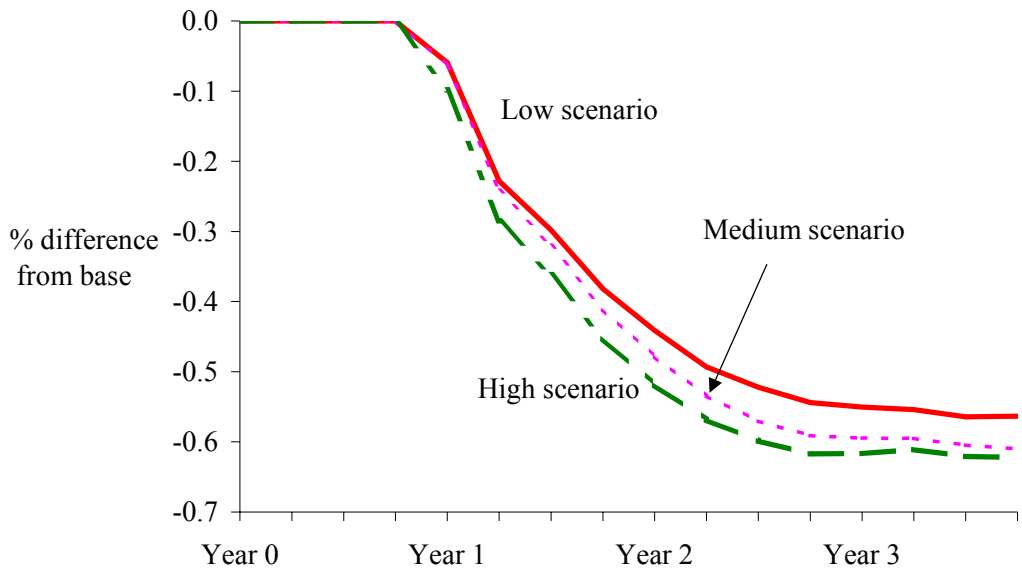
- *Low scenario*—assumes that only 20% of mortgages are 'flexible' and therefore vulnerable to the impact of the Directive, and that the impact on interest rates is at the low end of the range (0.7 percentage points for the unsecured rate, and 0.05 percentage points for the secured rate).

- *Middle scenario*—assumes a high proportion (50%) of flexible mortgages, but impacts on interest rates at the low end of the range.

- *High scenario*—assumes a high proportion of mortgages at flexible rates and interest-rate effects at the high end of the range.

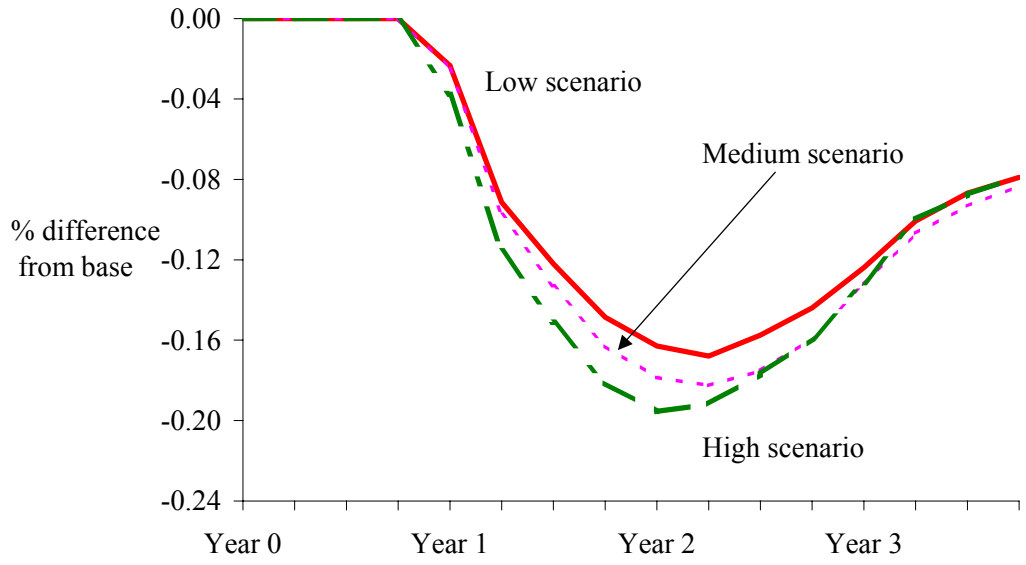
The impact of each scenario is summarised in the figures below.

Figure A1.2: Effects of the Directive on consumer spending



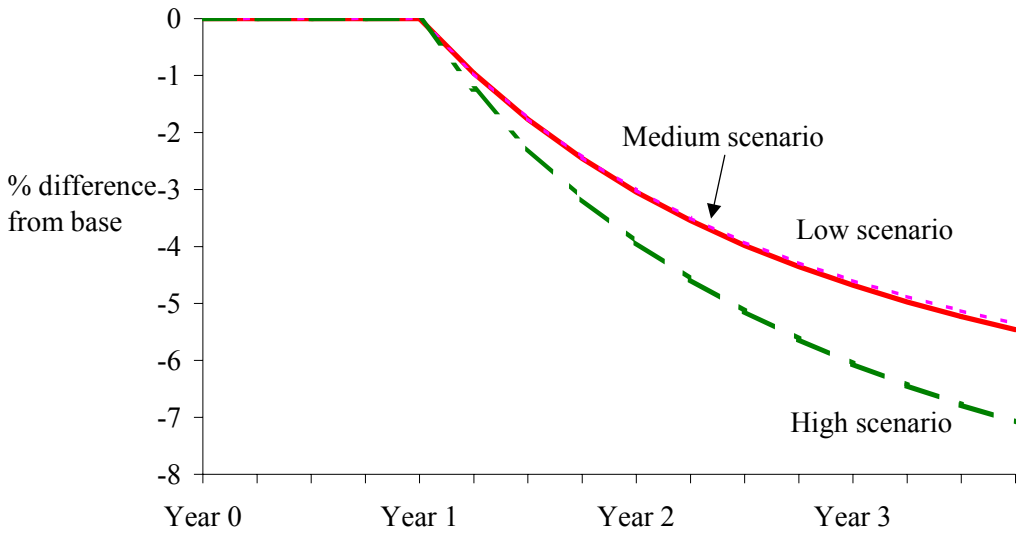
Source: OEF.

Figure A1.3: Effects of the Directive on GDP



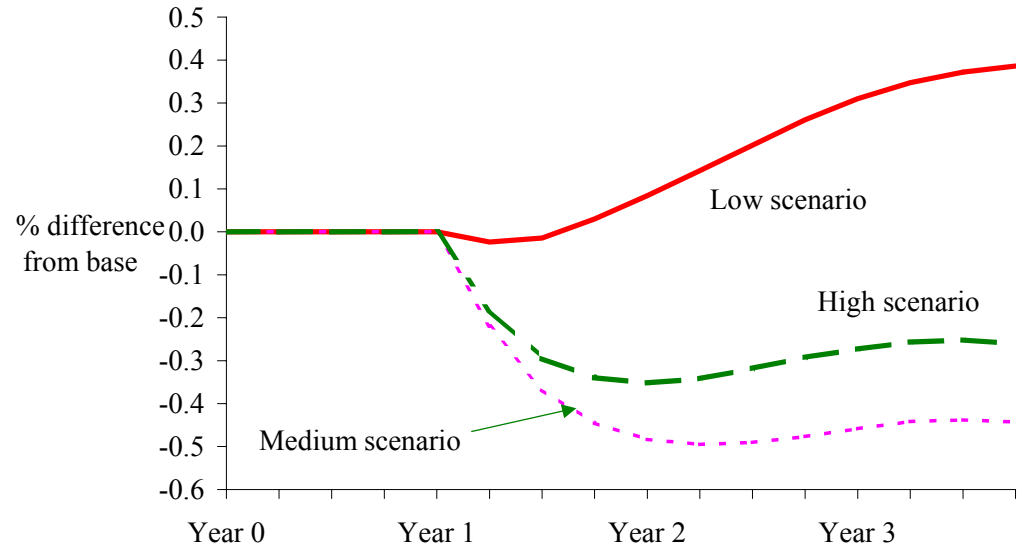
Source: OEF.

Figure A1.4: Effects of the Directive on unsecured credit



Source: OEF.

Figure A1.5: Effects of the Directive on the stock of mortgages



Source: OEF.

Consumer spending falls in all three scenarios, reflecting both credit rationing and the increase in interest rates assumed in the scenarios. The reduction in consumer spending is in the range 0.5–0.7%, spread over three years, depending on which scenario materialises. The impact on GDP is less than on consumer spending, since other sources of domestic demand (such as investment) are not directly affected by the Directive. However, GDP does fall, by between 0.1% and 0.2%. The model of consumer credit, embedded in the OEF UK Macroeconomic Model, allows for the effect of weaker GDP on monetary policy: in all scenarios, the Monetary Policy Committee (MPC) observes a reduction in

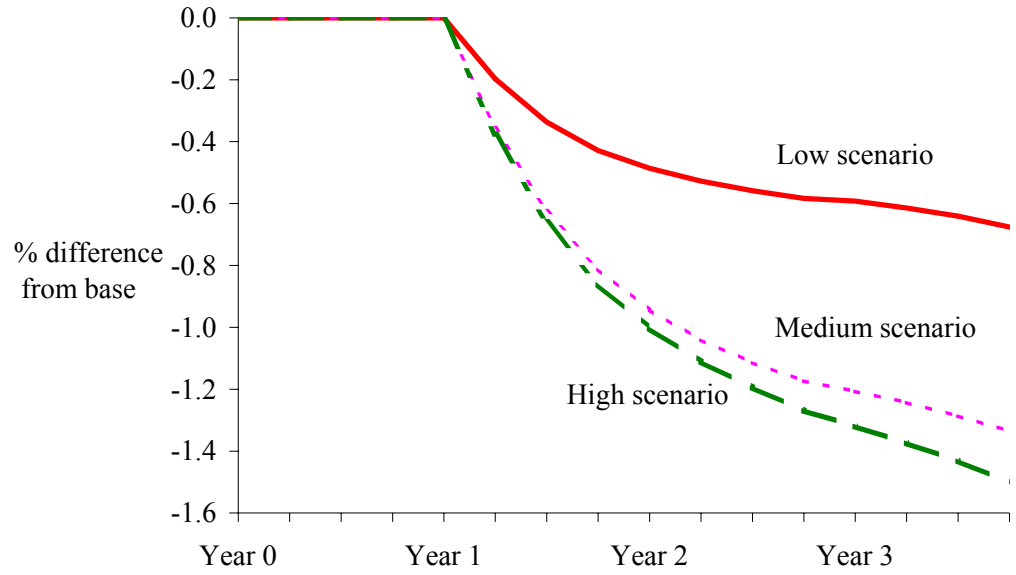
aggregate demand, and seeks to offset it by cutting interest rates. Those cuts mean that, in the long run, GDP will return to its base levels. However, the model suggests that the lags in the system are such that GDP remains below base for five years in all scenarios.

Unsecured consumer credit is highly sensitive to the interest rate charged on it, so the stock of unsecured consumer credit is hit hardest in the high-interest-rate scenario (scenario 3). The direct effect of credit rationing on unsecured credit is the same in all scenarios.

Secured credit, by contrast, actually benefits from the changes in interest rates: the increase in the mortgage rate in all scenarios is small and is more than offset by the reduction in base rates as the MPC responds to weaker demand by loosening monetary policy. Moreover, the stock of mortgages benefits from the much larger increase in the interest rate on unsecured credit in these scenarios—the price of a substitute form of credit (albeit an imperfect substitute) has increased, encouraging demand to shift into secured credit. However, in all but one of the scenarios, the credit-rationing effects of the Directive on the supply of flexible mortgages more than offset those other, positive effects. Only when the credit-rationing effects are small and the interest-rate effects are large is the net impact on the stock of mortgages positive.

Taking secured and unsecured credit together, the impact of the Directive is negative in all scenarios. Even where the stock of mortgages increases, that increase is more than offset by a reduction in unsecured credit. Total consumer credit falls by between 0.6% and 1.5% (see Figure A1.6).

Figure A1.6: Effects of the Directive on the total use of credit



Source: OEF.

Appendix 2: Estimation Results

A2.1 Unsecured and secured credit equations (SUR)—long-run

Unsecured credit equation: **LOG(CC)=C(1)+C(2)*(RUC/100-RBM/100)+C(3)*(RUC/100)+C(4)*LOG(0.11*HHNW(-1)+(1-0.11)*MVH(-1))+(1-C(4))*LOG(PEDYSH)+C(40)*DUM95+FLIB**

Secured credit equation: **LOG(MRTPE)=C(11)+0.25*C(2)*(RBM/100 – RUC/100)+C(13)*(RBM/100)+C(4)*LOG(0.11*HHNW(–1)+(1 – 0.11)*MVH(–1))+(1 – C(4))*LOG(PEDYSH) – C(40)*DUM95+FLIB**

System: SYSMAR21

Estimation Method: Seemingly Unrelated Regression

Date: 04/09/03 Time: 11:55

Sample: 1995:2 2002:4

Included observations: 31

Total system (balanced) observations 62

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	–0.061352	0.144860	–0.423526	0.6736
C(2)	–3.717359	0.987858	–3.763051	0.0004
C(3)	–4.649040	0.694737	–6.691795	0.0000
C(4)	0.335992	0.029133	11.53301	0.0000
C(40)	–0.054885	0.012145	–4.519054	0.0000
C(11)	0.222721	0.091516	2.433689	0.0182
C(13)	–2.106467	0.472424	–4.458849	0.0000

Determinant residual covariance 2.24E-07

Equation: LOG(CC)=C(1)+C(2)*(RUC/100-RBM/100)+C(3)*(RUC/100)+C(4)*LOG(0.11*HHNW(-1)+(1-0.11)*MVH(-1))+(1-C(4))*LOG(PEDYSH)+C(40)*DUM95+FLIB

Observations: 31

R-squared	0.988674	Mean dependent var	11.53550
Adjusted R-squared	0.986932	S.D. dependent var	0.277446
S.E. of regression	0.031716	Sum squared resid	0.026154
Durbin-Watson stat	0.911205		

Equation: LOG(MRTPE)=C(11)+0.25*C(2)*(RBM/100 – RUC/100)+C(13)*(RBM/100)+C(4)*LOG(0.11*HHNW(–1)+(1 – 0.11)*MVH(–1))+(1 – C(4))*LOG(PEDYSH) – C(40)*DUM95+FLIB

Observations: 31

R-squared	0.988023	Mean dependent var	13.08103
Adjusted R-squared	0.986181	S.D. dependent var	0.166212
S.E. of regression	0.019539	Sum squared resid	0.009926
Durbin-Watson stat	0.876633		

Where:

- CC is the stock of unsecured consumer credit (credit cards, personal loans, overdrafts);
- MRTPE is the stock of mortgage debt (ie, secured credit)—about four times as large as CC;

- RUC is the average interest rate on unsecured credit;
- RBM is the average mortgage interest rate;
- HHNW is household net financial wealth;
- MVH is the market value of housing (ie, housing wealth);
- PEDYSH is nominal personal disposable income;
- DUM95 is a dummy variable;
- FLIB is a proxy for financial liberalisation (from Muellbauer).

According to the equations above, in the long run both unsecured and secured credit will move in line with a weighted average of financial wealth, housing wealth and disposable income. The ratio of each type of credit to that weighted average will depend on the interest rate—both the 'own' interest rate on secured or unsecured credit and the spread between the 'own' rate and the 'other' rate, the cross-price elasticity. Then, for any level of wealth and income, and for any set of interest rates, total credit will increase or decrease as financial liberalisation changes.

A2.2 Consumption equation—long-run

Dependent variable: LC

Method: Least squares

Date: 04/07/03 Time: 15:31

Sample: 1975:1 2001:4

Included observations: 108

LC=C(1)+C(2)*HW*FLIB/0.20206+C(3)*FW+(1-C(2)-C(3))*LPEDY +C(5)*FLIB

	Coefficient	Std. error	t-Statistic	Prob.
C(1)	2.852076	0.242446	11.76377	0.0000
C(2)	0.141171	0.010240	13.78686	0.0000
C(3)	0.093733	0.013155	7.125171	0.0000
C(5)	1.753040	0.137921	12.71047	0.0000

R-squared	0.994952	Mean dependent var	11.44749
Adjusted R-squared	0.994806	S.D. dependent var	0.226306
S.E. of regression	0.016310	Akaike info criterion	–5.357774
Sum squared resid	0.027665	Schwarz criterion	–5.258435
Log likelihood	293.3198	Durbin-Watson stat	0.788074

Where:

- LC is the log of real consumer spending;
- HW is a measure of housing wealth—the log of the market value of the housing stock divided by nominal disposable income;
- FW is a measure of financial wealth—the log of total household net financial wealth divided by nominal disposable income;
- LPEDY is the log of real personal disposable income.

According to this equation, in the long run, real (inflation-adjusted) consumer spending moves in line with a weighted average of housing wealth (modified by FLIB), financial wealth and real income, with FLIB also playing a role as an intercept adjustment.

A2.3 Consumption equation—short-run

Dependent variable: D(LC)

Method: Least squares

Date: 04/07/03 Time: 15:31

Sample (adjusted): 1975:2 2001:4

Included observations: 107 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.008269	0.001958	4.223118	0.0001
D(LUP)	–0.089664	0.020194	–4.440166	0.0000
D(LPEDY)	0.213683	0.064323	3.322062	0.0013
D(LPEDY(-1))	0.246068	0.066640	3.692466	0.0004
D(0.8*RRBM+0.2*RRUC)	–0.003061	0.001120	–2.732973	0.0074
FLIB*(0.8*RRBM(-1)+0.2*RRUC(-1))	–0.002209	0.001353	–1.632548	0.1057
ECM(-1)	–0.177756	0.075541	–2.353102	0.0206
D(LC(-1))	–0.280375	0.096813	–2.896064	0.0047

R-squared	0.395047	Mean dependent var	0.006901
Adjusted R-squared	0.352272	S.D. dependent var	0.011521
S.E. of regression	0.009272	Akaike info criterion	–6.451729
Sum squared resid	0.008512	Schwarz criterion	–6.251892
Log likelihood	353.1675	F-statistic	9.235566
Durbin-Watson stat	1.871052	Prob(F-statistic)	0.000000

Where:

- D(LC) is the growth in consumer spending;
- D(LUP) is the change in the log of the claimant unemployment rate;
- RRBM is the real average mortgage interest rate (deflated by house price inflation);
- RRUC is the real average unsecured credit interest rate, deflated by the consumer price index (CPI);
- ECM is the equilibrium correction mechanism, a measure of the long-run disequilibrium derived from the long-run equation above.

According to this short-run equation, the growth in consumer spending is such as to close any gap between the level of consumer spending and its long-run equilibrium (identified in the long-run equation above). Growth is also influenced by the change in the rate of unemployment, the growth of real income, and the change in, and the level of, a weighted average of the secured- and unsecured-credit interest rates, where the level term is modified by FLIB.

Appendix 3: The Oxford World Macroeconomic Model—an Overview

A3.1 Introduction

It has long been one of OEF's guiding principles that many of the most important and interesting macroeconomic issues are inherently international. Globalisation means that policy-makers and analysts have to form judgements about important economic developments not only in their own country, but in their major trading partners as well. A change in US monetary policy, for instance, has repercussions for the whole world; oil and commodity price shocks have been the major source of terms of trade movements in Europe in the last quarter century or so; governments are increasingly collaborating over monetary, fiscal and environmental policies. All of this means that single-country econometric models, which treat world trade, world prices and exchange rates as exogenous, are not best suited to analysing some of the most important issues of interest to financial and business economists.

The root cause of this integration is the massive increase in trade and capital flows between countries in the post-war period, and OEF's client base is testament to the growth in interest in international issues. With offices in the US and Switzerland, as well as Oxford, OEF aims to combine access to local information and expertise with a global outlook to provide a truly international service. The Oxford World Macroeconomic Model reflects that priority, as coverage of the major trading countries has both deepened, and widened.

The latest version of the Oxford Model improves on previous vintages by incorporating well-behaved, theory-consistent models for all of the individual countries covered, not just the big seven. It maintains the tradition of allowing for significant cross-country differences in model structures, but ensures that those differences truly reflect economic, as opposed to economic model-builders', idiosyncrasies. Where possible, and it is possible in the majority of cases, the functional form for equations is left the same across countries. Parameters differ of course, and this means that different countries exhibit different behaviour in response to shocks (although economy structure also accounts for variations). Now, however, tracing the root cause of these differences, and attributing them to underlying behaviour or structure, is much simpler. For instance, real wage rigidity is higher in some countries than others, and specific coefficients in wage and price equations reflect this. Unemployment will tend to rise further and faster in these countries in response to an adverse demand shock, even though the functional form of wage and price equations is identical across countries.

A3.1.1 Theoretical motivations

Different types of model suit different purposes. The days of relying on a single, large macroeconometric model as the definitive 'pictorial' representation of an economy are gone. However, the same demands which drove the construction of large-scale models of the 1970s and 1980s are still there: business economists still need to forecast, they still need to analyse the effects of government policy, and they still need to study the implications of different theories about behaviour.

Broadly speaking, there are three types of model designed to help the business economist in these tasks. At one extreme, there are the purely statistical models known as vector autoregressions (VARs). Their strengths are short-term forecasting (usually six months to a year or so) and the generation of stylised facts. However, they are much less useful for

longer-term forecasting and, because they lack any economic structure, they cannot be used for policy analysis.

At the other extreme are the so-called computable general equilibrium models (CGEMs). These models' equations are derived by assuming private agents solve dynamic optimisation problems, and they typically do not have error terms, or residuals, like econometrically estimated relationships. They are calibrated so that in equilibrium they reproduce historical averages of key macro variables. Their strength is their high degree of rigour, but when econometricians perform statistical tests on them, they typically do badly relative to the traditional models.

At OEF we take the third, and what is still the mainstream, approach. However, we recognise that both the approaches described above have important lessons for traditional model-builders. A good test of a macro model is whether it does as well as a VAR in reproducing short-run behaviour, and whether its long-run relationships are supported by cointegration in VARs. Also CGEMs have taught us the importance of theory, and that it is often better to impose a coefficient to match a tried-and-tested stylised fact than to stick slavishly to coefficients estimated from short samples of data. The main advantage of the macroeconometric approach is that it provides both a forecasting tool and a tool for policy analysis. This approach is the closest we will get to the 'jack-of-all-trades', combining sensible forecasts with well-founded analysis.

A3.1.2 Coverage of the Oxford Model

The 'core' Oxford World Model now comprises 24 country models together with six trading blocs. In addition, there are 14 new 'emerging market' country models. The country models are fully interlinked via trade, prices, exchange rates and interest rates, with the blocs completing all the world coverage.

The models can be classified into five groups.

Group	I	II	III	IV	V
	US	Sweden	Denmark	Poland	Eastern Europe
	Japan	Switzerland	Finland	Hungary	Latin America
	Germany	Belgium	Norway	Russia	Africa
	France	Netherlands	Ireland	Czech Republic	OPEC
	Italy	Spain	Portugal	Brazil	Rest of OECD
	UK	Austria		Argentina	Rest of world
	Canada	Mexico		Philippines	
	China	Australia		Chile	
		Taiwan		Malaysia	
		South Korea		Indonesia	
		Hong Kong		South Africa	
				Turkey	
				Singapore	
				Thailand	
Typical number of variables	250+	150–200	50–100	100–200	

In addition, the model includes a bloc of world variables such as oil and commodity prices, world GDP and industrial production, OECD average inflation, aggregates covering the euro-11 group, etc.

The country models (I–IV) are identical in structure, but the bigger models incorporate greater disaggregation and more financial sector detail. The blocs identify the key aggregates—GDP, consumer prices, exchange rate and current account—for a further 39 countries.

A3.2 Outline of the model

A3.2.1 An outline of the Oxford Country Models

The structure of each of the country models continues to be based on the income-expenditure accounting framework. However, the models now have a much more coherent treatment of supply. In the long run, each of the economies behaves like the textbook description of a one-sector economy under Cobb–Douglas technology in equilibrium. Countries have a natural growth rate, which is ultimately beyond the power of governments to alter, and is the result of population and productivity growth. Output cycles around a deterministic trend, so at any point in time we can define the level of potential output, corresponding to which is a natural rate of unemployment. Firms are assumed to set prices given output and the capital stock, but the labour market is imperfectly competitive. Firms bargain with workers over wages, but they get to choose the level of employment. Countries with high real wages get high unemployment in the long run, and countries with rigid real wages get persistently high unemployment relative to the natural rate.

Inflation is a monetary phenomenon in the long run. All the models have vertical Phillips curves, so expansionary demand policies put upward pressure on inflation. Unchecked, these pressures would cause the price level to accelerate away without bound, and in order to prevent this we have endogenised monetary policy. For some (such as the US and UK), the latter is summarised in an inflation target, and interest rates are assumed to move up whenever inflation is above the target rate, and/or output is above potential (a so-called ‘Taylor rule’). In others (eg, the euro-bloc), the authorities are assumed to act as though they target a monetary aggregate. The coefficients in the interest-rate-reaction function, as well as the inflation target itself, reflect our perceptions of how hawkish different countries are about inflation. A by-product of this new system is that simulations under fixed-interest rates make sense for only a couple of years or so. If you do not ‘do’ monetary policy, and Phillips curves are vertical, then you end up with hyperinflation (or hyperdeflation, depending on the shock) after a few years.

Demand is modelled in much the same way as before. Consumption is a function of real incomes, real financial wealth, real interest rates and inflation. Investment equations are influenced by ‘q-theories’, in which the investment rate is determined by its opportunity cost, after taking taxes and allowances into account. Countries are assumed to be ‘small’, in the sense that exports are determined by demand and a country cannot ultimately determine its own terms of trade. Consequently, exports are a function of world demand and the real exchange rate, and the world trade matrix ensures adding-up consistency across countries. Imports are determined by real domestic demand and competitiveness.

The models’ financial sectors have been rationalised and standardised. A financial block, which includes variables of direct relevance to financial market participants, has been

added (FINMOD). This block forecasts total rates of return on cash, stocks and bonds. Moreover, the treatment of asset holdings by sector has been greatly simplified. The private sector is broken down to personal and corporate components, but no further. General government net debt is now identified for all countries, and both net overseas assets and net IPD flows are derived by residual.

More generally, our approach has been to aggregate where it is not clear that disaggregation (i) improves the quality of forecasts or analysis, or (ii) serves particular users' needs. From a practical point of view, aggregation tends to make it easier to identify the model with theoretical counterparts, and thus gives us a clearer idea of its relative strengths and weaknesses. Many financial flows have been aggregated, and government accounting conventions have been standardised at a relatively high level of aggregation. On the other hand, we continue to disaggregate the components of personal income, the categories of investment and the energy sector, partly because we believe that doing so helps us to forecast better, but also because we recognise that these variables are of interest to particular users.

A3.2.2 The Oxford World Model Structure

Model variables are divided into demand and supply, core and non-core. Coverage of core variables is standard across all country models; non-core coverage is determined by data availability and country-specific requirements. Core demand variables include all the aggregate expenditure components, at constant and current prices, monetary policy variables and FINMOD. The demand non-core includes disaggregated consumption and investment, as well as important indicator variables such as retail sales and car sales. Core supply consists of variables determining the natural levels of output, unemployment and real wages. Prices are also disaggregated in the core supply block. Non-core supply disaggregates employment and nominal earnings. Separate blocks build up the government, personal and corporate sector flow accounts, while the G7 energy model is also included as a distinct entity in some versions.

The following sections describe the structure and theoretical motivation of some of the key equations in the core model.

Consumption

The consumption equations take the form:

$$\Delta c = a1 * \Delta y + a2 * \Delta u - a3 * (c(-1) - a4 * y(-1) - (1 - a4) * W(-1) + a5 * R(-1))$$

where lower-case letters denote logs, and c, y and u are consumption, real income and unemployment respectively, while W and R refer to the financial wealth-income ratio and real interest rates. We acknowledge that this treatment is a little old-fashioned, and we are investigating more modern treatments which emphasise intertemporal optimisation, the importance of wealth in the form of human capital, the link with labour supply and consumption smoothing in the face of shocks. However, all the variables that the modern treatments stress, with the exception of human wealth, are included in our formulation; real interest rates, taxes and wealth are what matter, and the only missing ingredient is forward-looking behaviour. More importantly, these error-correction formulations appear to mimic very well consumption smoothing in a number of countries, an observation which mitigates some of our worries about their theoretical underpinnings.

Investment

Three aspects of gross fixed investment are identified in the Oxford Model: private business, private housing and government (which is exogenous).

The equations for business investment are based on so-called q-theories of investment. In these, capital is time-consuming to install and these adjustment costs drive a wedge between the post-tax marginal product of capital and its marginal cost. Profit-maximising firms invest when the marginal return is greater than the replacement cost ($q > 1$), and reduce investment, or even scrap, when the reverse holds. In the long run, the capital stock reaches its desired level, all investment is replacement, $q = 1$, and the familiar marginal productivity relationship holds. The equations are, once again, backward-looking and take the following form:

$$\Delta i = a1 * q - a2 * (i(-1) - k(-1)) + a3 * \Delta y$$

where i is private-sector business fixed investment, k is the equivalent capital stock and y is GDP; q is defined as the post-tax marginal product of capital relative to the real interest rate. With Cobb–Douglas, constant return to scale technology, the capital-output ratio is constant in the long run, and equal to the post-tax, post-depreciation real interest rate divided by the capital share. There are also short-term accelerator effects from changes in output, which can be justified in a q-framework if some companies are credit-constrained.

Personal sector housing investment is determined analogously to consumption, by real income, wealth and interest rates, since it is considered part of a portfolio of spending decisions taken by households.

International trade

Trade flows are disaggregated into fuel, non-fuel goods, and services. The non-fuel goods components reflect the bulk of exports and imports for most countries, and we focus on those here. Exports and imports are demand-determined:

$$\Delta x = \Delta wt - a1 * cu - a2 * \Delta wcr - a3 * (x(-1) - wt(-1) - a4 * trx)$$

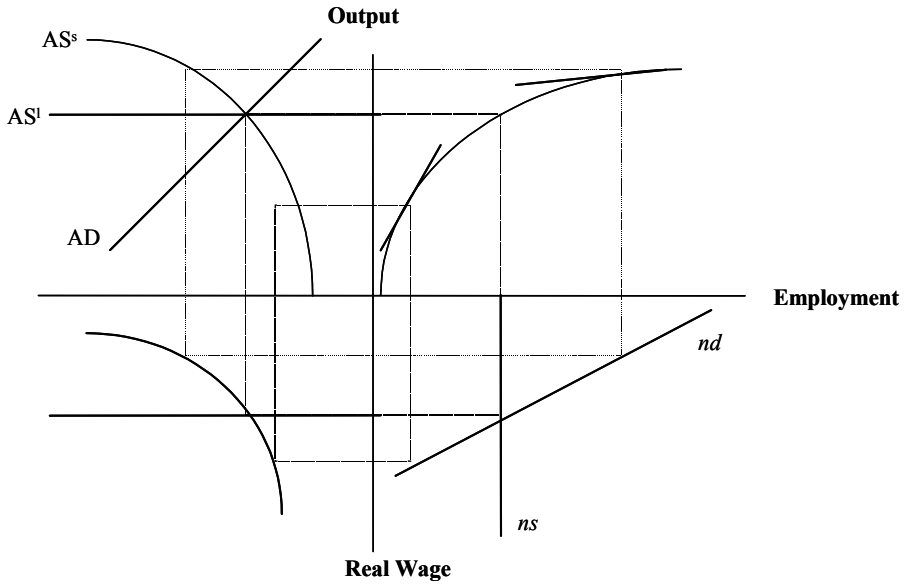
$$\Delta m = b1 * \Delta tfe + b2 * \Delta wcr - b3 * (m(-1) - tfe(-1) - b4 * wcr(-1) - b5 * cu(-1))$$

x refers to exports of non-fuel goods; m to the equivalent imports; wt is world trade; tfe, total final expenditure; wcr, relative unit labour costs; and cu, capacity utilisation as measured by model estimates of the output gap. The time trends capture secular shifts in a country's world trade share caused by non-price factors, and the impact of the long-term increase in the specialisation of production on import penetration. Trade competitiveness elasticities are typically between 0.3 and 0.6, and most country models satisfy the Marshall–Lerner conditions, so that a sustained improvement in competitiveness will lead to an improvement in the trade balance in the long run.

The equations for trade in services are analogous to those for non-fuel goods, while imports of fuel meet the gap between, on the one hand, domestic and export demand, and, on the other, domestic production. All trade prices are a weighted average of domestic and world prices.

Core supply

Given its importance to overall model properties, this is probably best summarised as a block, rather than equation by equation. The following diagram is a useful, if simplistic, description of the key features of the model's supply side.



The north-east quadrant shows the production function with diminishing returns, relating output to employment. Tangents to the production function are the marginal product of labour, which in equilibrium equals the real wage. These tangents trace out a demand for labour in the south-east quadrant—our employment equation (*nd*). Given a fixed labour supply (*ns*), the intersection generates the equilibrium real wage consistent with no involuntary unemployment and normal (or potential) output. The latter is traced out along the vertical aggregate supply curve (AS_l) in the north-west quadrant.

In the short run, however, relatively rigid *real* wages generate involuntary unemployment ($n_d \neq n_s$), while *nominal* inertia means that the short-run relationship between real wages and the price level is shown by the hyperbola in the south-west quadrant. Short-run changes in labour demand then trace out a positively sloped short-run aggregated supply curve (AS_s), ensuring that changes in aggregate demand (AD), as derived from an IS-LM system, translate into short-run changes in prices and output, although the long-run effects are felt on prices alone.

In short, the employment equation defines a level of real unit labour costs (real wages/productivity) which is constant in the long run. Consistent with this level of real unit labour costs are natural levels of output and unemployment. When the economy is away from these natural levels, inflation and interest rates move to bring the economy back towards equilibrium. The larger are nominal and real rigidities, the larger and longer-lived are real disequilibria.

Algebraically, the employment equation solves in the long run for the constant level of real unit labour costs, given by labour's share in the production function, while the wage and price equations solve in the long run for the level of unemployment consistent with

this labour share. In the short run, both wage and price equations incorporate nominal and real wage rigidity, which ensure the existence of 'involuntary' unemployment and monetary effects on the real economy.

With vertical Phillips and aggregate supply curves, monetary policy determines the inflation rate, while structural, or supply-side policy determines the unemployment rate. The NAIRU (non-accelerating inflation rate of unemployment) is related to the so-called 'tax wedge' (the gap between the total real cost of labour to employers, including social security contributions, and the real value of post-tax wages received by employees), and to real energy prices.

A3.3 Technical structure of the model

The equations which make up the Oxford World Model are set out in various EQN files. These typically fall into two groups:

- behavioural relationships (eg, relating wages to prices, productivity and unemployment);
- technical relationships (eg, the national income identities).

It is the behavioural relationships that represent the analytical content of the Oxford Model. In general, these equations have a standard 'error correction' format (ie, simple control feedback loops), where:

$$\Delta Y_t = \alpha_0 \Delta Y_{t-1} + \alpha_1 \Delta X_t + \alpha_2 \Delta X_{t-1} - \beta (Y_{t-1} - \gamma X_{t-1}) + R_t \qquad (1)$$

where Y is the dependent variable; X the explanatory variable(s); R the residual; and Δ= first-difference operator.

The term in parentheses in equation (1) represents the long-run relationship between X and Y. That is, when the model has reached (static) equilibrium—so that $\Delta Y_t = \Delta Y_{t-1} = \Delta X_t = \Delta X_{t-1} = 0$ —then $Y_t = \gamma X_t$. Note, if Y and X are expressed in logarithmic terms, this equation implies that a 1% increase in X will lead eventually to a rise of γ% in Y (ie, 'γ' represents the long-term elasticity of Y with respect to X). Economic theory is used to determine the appropriate explanatory variables to include in X and also determine any restrictions on the value of γ (eg, in the context of an equation relating to wages and prices, static homogeneity would imply that γ=1). Cointegration techniques are used to estimate this long-term relationship.

Of course, economies are frequently out of equilibrium. The terms in ΔY and ΔX in equation (1) therefore seek to model the adjustment of Y back to its long-term relationship with X (ie, the 'dynamics' of the equation). So, if there is a 1% sustained rise in X then:

- Y will rise immediately by α_1%;
- in the next quarter, Y will rise by $[(1 + \alpha_0 - \beta)\ \alpha_1 + \alpha_2 + \beta\gamma]$%, and so on until;
- eventually, Y will rise by γ%, which represents the end of the adjustment process.

The speed with which Y adjusts to its long-run relationship with X depends, in particular, on the size of coefficient β. Note for equation (1) to be stable, β must lie between 0 and 1. However, the closer β is to –1, the faster the equation will reach equilibrium following a

shock. For short-term forecasts, it is important to understand the dynamics of the model equations as the long-term properties.

A3.4 Schematic model

The following is a highly condensed version of a typical Oxford country model. The idea is to present the model's key equations in a relatively accessible fashion, so that key inter-variable relationships can be seen clearly. We stress that this is just a small part of the model template—they typically consist of more than 200 variables—however, these equations might be thought of as defining the model's theoretical core. As such, the functional forms are identical across all the countries covered. The equations presented are all 'long-run' relationships (ie, they abstract from dynamics). We adhere to the convention that lower-case mnemonics denote logs of variables.

Demand

Goods market:

c = a1*pedy + (1 – a1)*(penw – pc) – a2*rrh	(consumption)
st = gdp + e1*time	(inventory level)
mgnf = tfe + c1*wcr + c2*time	(non-fuel imports)
xgnf = wt – d1*wcr + d2*time	(non-fuel exports)

Money market:

mon = b1*gdp + (1 – b1)*(prnw – pc) – b2*RSH	(real money balances)
RLG = b3*RSH + (1 – b3)*RLG,US + b4*GGDBT/GDP!	(long bond rate)
rxd = rxd(expected) + log(1+RSH,US/400) – log(1+RSH/400) + RISK	(exchange rate)

Supply

Capital accumulation:

K = (1 – DELTA)*K(–1) + IPNR[45]	(capital stock)
IPNR = K(–1) + f1*QR + short run GDP effects	(non-residential investment)
RRH = f6*RSH + (1 – f6)*RLG – 100*inflation (expected)	(real interest rate)

[45] delta is potentially endogenised as a function of the output gap; this is not the case in current versions of the models.

Labour market and the NAIRU

LS = PART*POPW (labour supply)

part = f2*(er – pgdp) (participation rate)

NAIRU = f3*WEDGE[46] (natural rate of unemployment)

ESTAR = (1 – NAIRU/100)*LS (natural employment level)

yhat = α*estar + (1 – α)*k(–1) + g1*trend (potential output)

cumod = gdp – yhat (output gap)

epr = gdp – er + pgdp (employment)

er = pgdp + gdp – epr – f4*(up – NAIRU) (average earnings)

Prices

pgdp = er – gdp + epr + f5*cumod (gdp deflator)

pmgnf = h1*pgdp + h2*(wpmf + rxd) + (1 – h1 – h2)*(wpc + rxd) (import prices)

cpix = j1*pgdp + (1 – j1)*pm (consumer prices)

Government policy

Monetary:
ΔRSH = l1*(inflation – inflation(-1)) + l2*(inflation – target) + l3*cumod ('Taylor' rule)

Fiscal: Government spending and major tax rates all currently exogenous

Rest of the world

WT = trade-weighted average of trading partners' imports (world trade)

WPMF = trade-weighted average of import prices (world prices)

WPC = weighted average of world non-fuel commodity prices

[46] Wedge is the (log) difference between the real product wage and real take-home pay, and consists of direct, indirect and payroll taxes, as well as producer prices relative to consumer prices.

Variable definitions (not specified elsewhere)

pedy: real personal disposable income; penw: personal sector net financial wealth; pc: personal consumption deflator; gdp: gross domestic product; tfe: total final expenditure; wcr: relative unit labour costs; prnw: private-sector net financial wealth; ggdbt: government gross financial debt; gdp!: nominal GDP; qr: Tobin's 'q'; popw: population aged 16–64; trend: Solow residual.