

Over-indebtedness & responsible lending in the UK

Dr Paul Russell

Director - Analytical Solutions

www.experian-scorex.com

paul.russell@uk.experian.com

- The headlines
- UK credit market and indebtedness
- Industry initiatives
- Measuring consumer indebtedness
- Affordability and customer value management
- Conclusions

Recent cases

BBC NEWS | England | Lincolnshire | Pensioner

Address: http://news.bbc.co.uk/1/hi/england/lincolnshire/3580061.stm

Pensioner runs up £30,000 debt

An 84-year-old woman on a state pension has run up debts of £30,000 on 20 different credit cards.



Kate Purnell said in January because of the stress of falling behind on her repayments.

Mrs Purnell lives in a rented mobile home at Ruskington in Lincolnshire - her pension is £76 a week.

Her daughter, Jeannie Judd, said: "The banks make obscene profits and give out credit like sweets without carrying out proper checks."

BBC NEWS | England | Nottinghamshire | Widow

Address: http://news.bbc.co.uk/1/hi/england/nottinghamshire/3501074.stm

Widow begins credit card campaign

A widow is campaigning against credit card firms following the death of her husband who hanged himself after running up debts exceeding £65,000.



Mrs Lewis is meeting bank

I'm £80,000 in debt on 12 credit cards

By Julie Harper

HOW difficult it is to get a credit card is a well-known fact. But for David Price, 41, from London, and only three months away from retirement, it was a nightmare. He had a credit card with a £10,000 limit and a £10,000 mortgage. He had also run up a £10,000 credit card debt. He had a credit card with a £10,000 limit and a £10,000 mortgage. He had also run up a £10,000 credit card debt.

Mr Price, an educational administrator, says: "It was as if I had been hit by a train. I had a credit card with a £10,000 limit and a £10,000 mortgage. He had also run up a £10,000 credit card debt."

He says he has to take responsibility for my reputation, but I just checked up on my credit card. I had a credit card with a £10,000 limit and a £10,000 mortgage. He had also run up a £10,000 credit card debt."

His wife Susan said he hanged himself after being home

SEE ALSO:
Widow begins credit card campaign
11 Mar 04 | Nottinghamshire
Card charges 'confuse'

- £100k debts reported
- 16 credit cards
- 20 credit lines
- Nearly every account at max utilisation
- Weekly income £340
- No serious arrears



- 800 out of 60,000 had debts > £100,000
- 2,500 owed 66x monthly income
- 200 had > 15 credit cards
- One had 48!

CCCS – Consumer Credit Counselling Service



This House...

...is horrified to find that existing credit checking is not working;

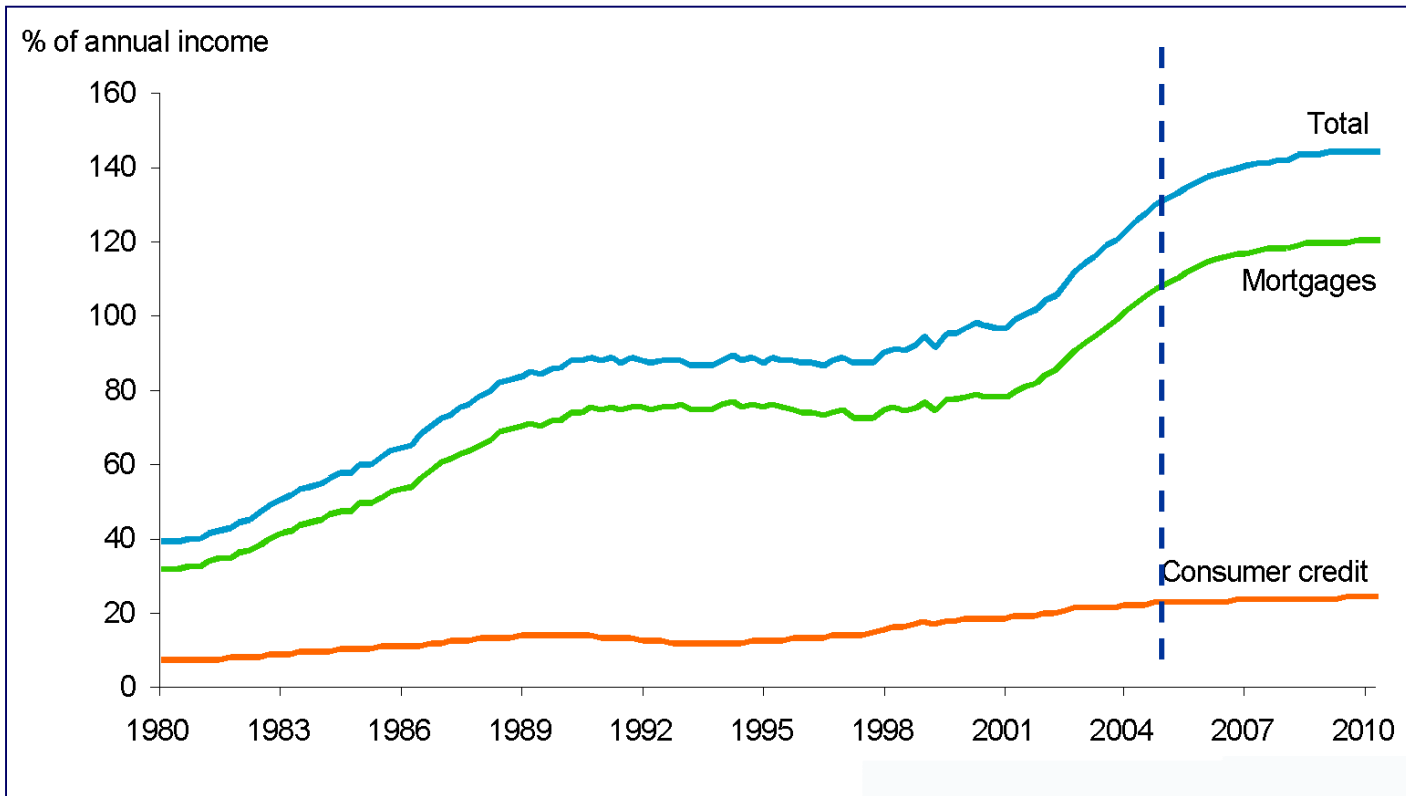
...believes that there has to be full information sharing between all financial institutions, clear credit to income ratios set for maximum credit limits, agreed triggers for industry-funded independent debt counselling and that such systems must operate across all lenders;

...calls on a self-regulated system to be agreed before the House rises in the summer and to be seen to be working before the next Queen's speech; and resolves that, in the absence of such a system,
Parliament must regulate the industry within the next year.

Early Day Motion 934 (30 March 2004)

- The headlines
- UK credit market and indebtedness
- Industry initiatives
- Measuring consumer indebtedness
- Affordability and customer value management
- Conclusions

UK indebtedness

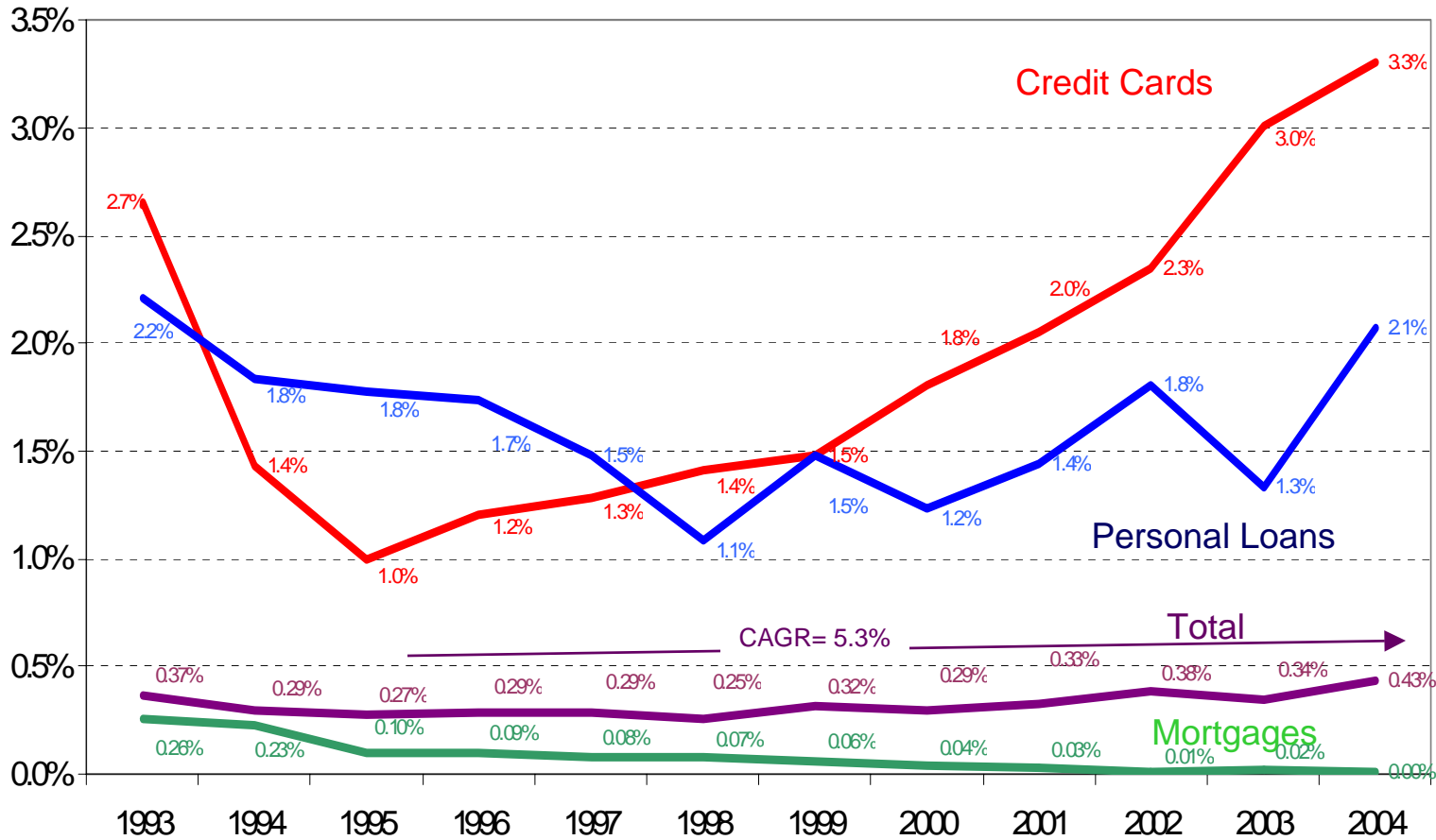


- **Personal debt now exceeds £1Tr**
- **Consumer credit is low relative to annual incomes**
- **Personal debt is dominated by secured lending**

Source: Bank of England, Experian Business Strategies

The UK retail credit market

Bank of England Write-Off Rates (%)

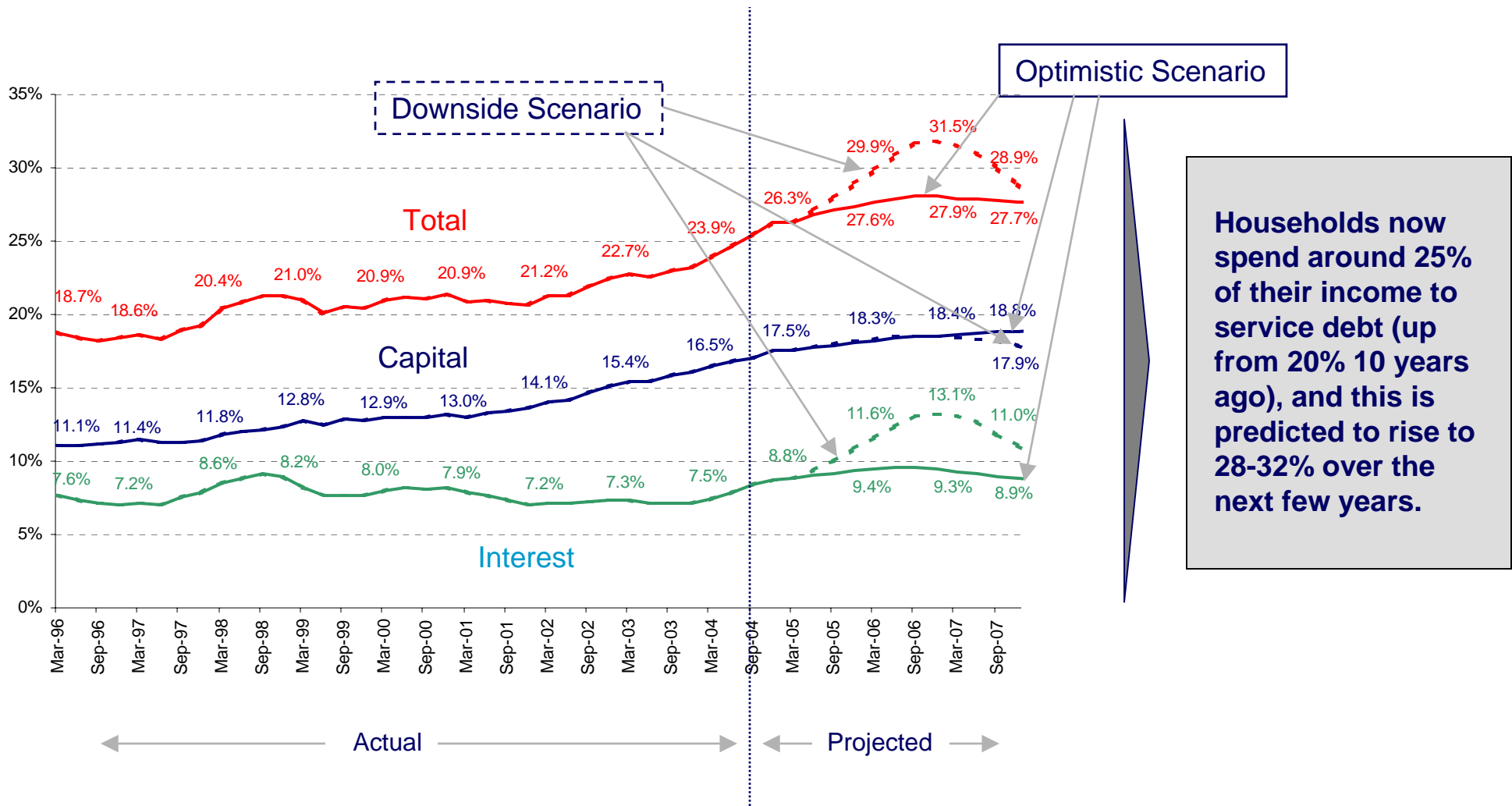


Over the last 10 years, average write-off levels across the UK have increased on average by 5.3% p.a., with a marked decline in mortgage write-off levels. However, credit card write-off levels have surged over the last 5 years, reaching 3.3% by end 2004.

Source: Bank of England, Experian

The UK retail credit market

Debt Servicing Payment* as a Percentage of Income - Total

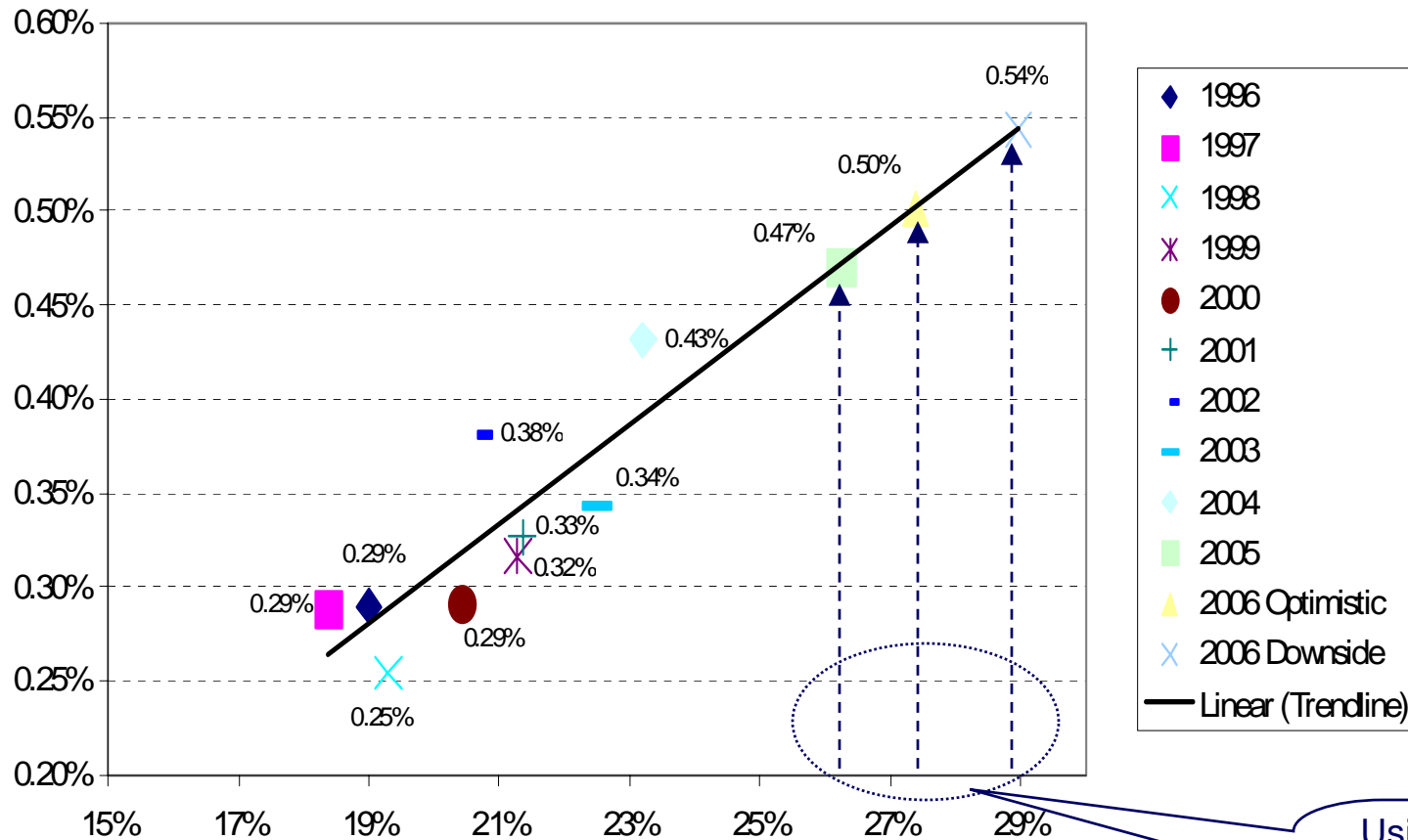


Households now spend around 25% of their income to service debt (up from 20% 10 years ago), and this is predicted to rise to 28-32% over the next few years.

* Debt servicing payment is the sum of capital and interest payments for mortgages, credit cards and other unsecured lending.
Source: Bank of England, Experian Business Strategies

The UK retail credit market

Write-Off Rate by Debt Servicing (12 Month Lag)



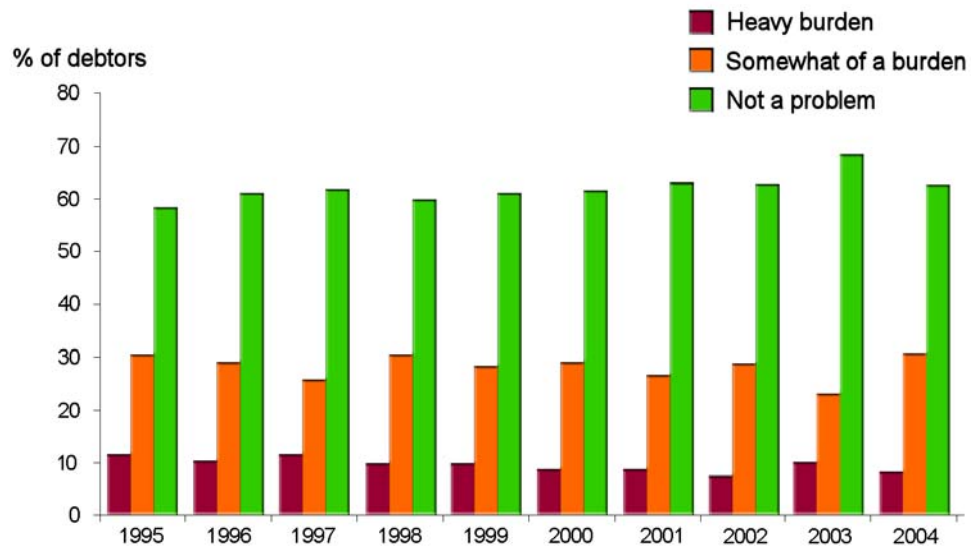
Write-off levels have traditionally been closely related to debt servicing to income ratios, and further increases in the ratio could see write-off levels reach 0.50% in the next few years (from 0.43% today).

Using the trend line, a prediction of write-off can be estimated for 2005 and for both scenarios in 2006

Note: The graphs shows write-off % in a given year and debt servicing ratio in the previous year.
Source: Bank of England, Experian

UK indebtedness: survey data

- Significant differences between owners and renters
- Renters are more likely to have problems but their share of total debt is small
- The vast majority of debt is attributable to homeowners but very few have current problems
- 40% of total household debt is owed by those spending over 25% of gross income servicing debts
- The share of debt owed by those with current debt problems is lower than a decade ago



Source : Bank of England and NMG Research. Figures up to 2002 are calculated using the BHPS, 2003 and 2004 figures are from the NMG Research surveys.

- **Generally, UK credit industry is very healthy**
- **Isolated cases of irresponsible borrowing exist**
- **Detection of those cases can be improved**

- The headlines
- UK credit market and indebtedness
- Industry initiatives
- Measuring consumer indebtedness
- Affordability and customer value management
- Conclusions

- Department for Trade and Industry (DTI) Task Force on Indebtedness
- Financial Services Authority Financial Capability Initiative
- APACS agreement to share all available data
- Industry/DTI/Department for Constitutional Affairs – historical consent
- Steering Committee on Reciprocity working group – new data sources
 - Student loans
 - Utilities

- Simple questions about personal financial circumstances
- Answers 'scored' to determine likelihood of indebtedness problems
- Score drives 'risk messages':
 - Suggestions on how to improve the situation
 - Sources of help – Citizen's Advice etc
- Supports 'What-if' scenarios
- Initial launch on BBC website



- The headlines
- UK credit market and indebtedness
- Industry initiatives
- Measuring consumer indebtedness
- Affordability and customer value management
- Conclusions

Full data sharing will help

- UK credit industry has committed to share full data on most products by 2006
- Approximately 40 credit accounts that cannot be shared due to lack of consent

Need to properly quantify individual indebtedness

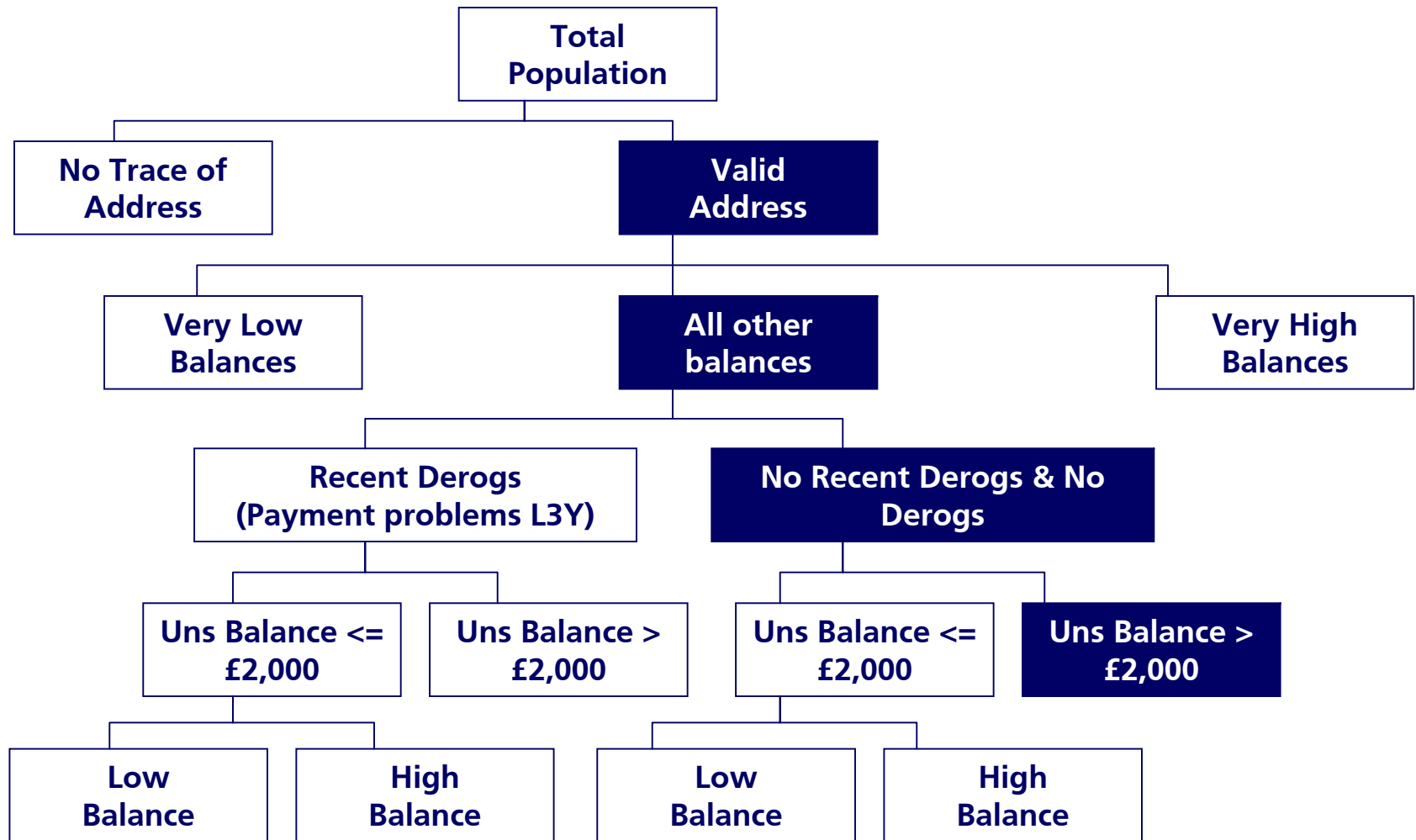
- A more refined view of credit bureau data has led to better understanding of individual commitments
- Developed the Consumer Indebtedness Index (CII) as a predictive measure of risk based upon a more detailed view of indebtedness

True affordability requires some knowledge of income

- Developed Estimated Disposable Income models to assist in the assessment of individual affordability.
- Developed an Affordability Index (AI) as a predictive measure of risk based upon a good understanding of individual affordability

G:B Odds

- Highly-committed customers
 - identified via current Delphi block 10.4:1
 - now identified 2.6:1
- Customers with current payment problems 2.4:1



Key Predictors

- Number of active accounts in use
- Number of revolving accounts in use
- Limit utilisation across revolving accounts
- Type of neighbourhood

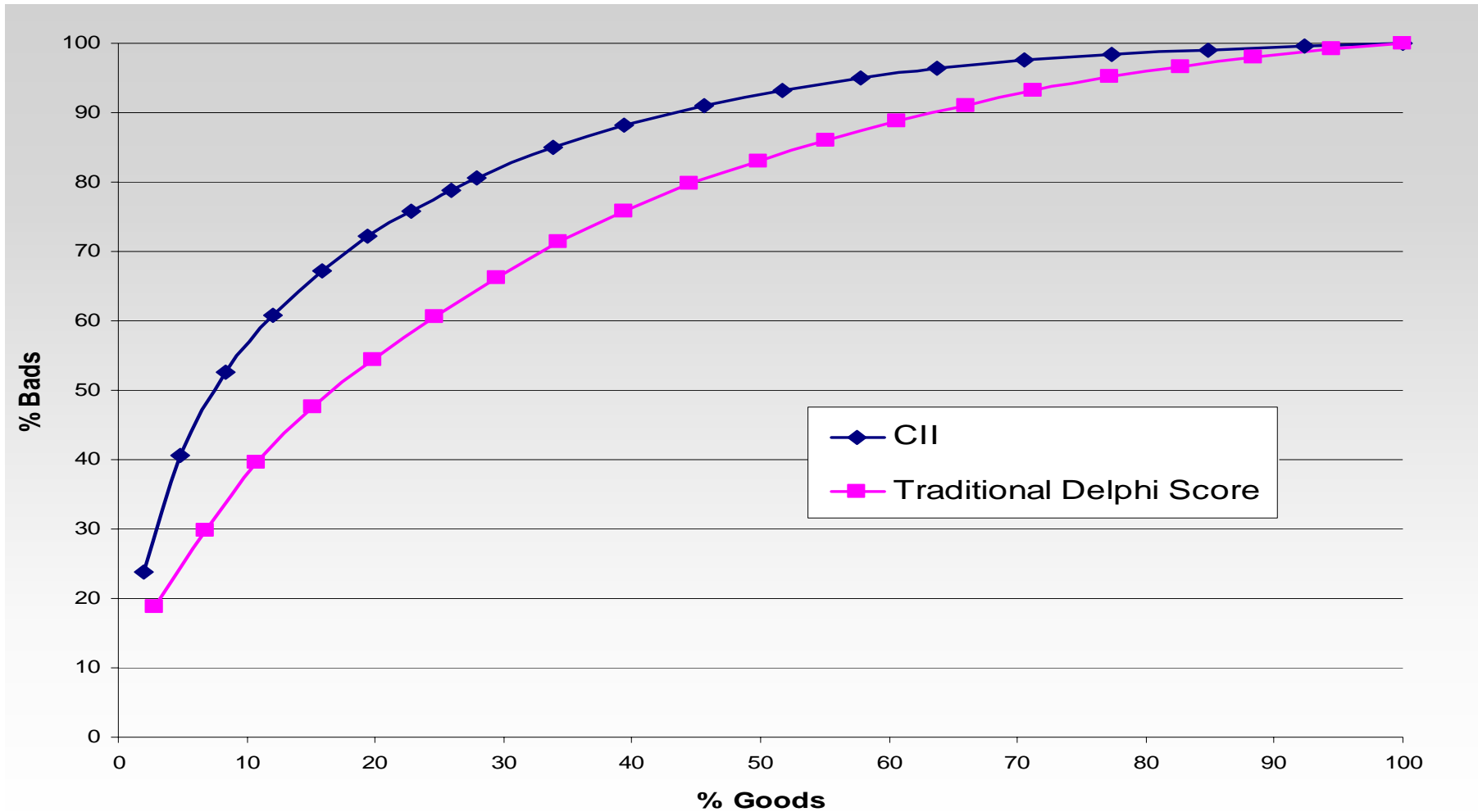


Strong Prediction

Index	Bad Rate (%)
91-100	57.7
81-90	30.4
71-80	16.3
61-70	10.6
51-60	6.5
41-50	4.3
31-40	3.4
21-30	1.9
11-20	1.3
1-10	0.7

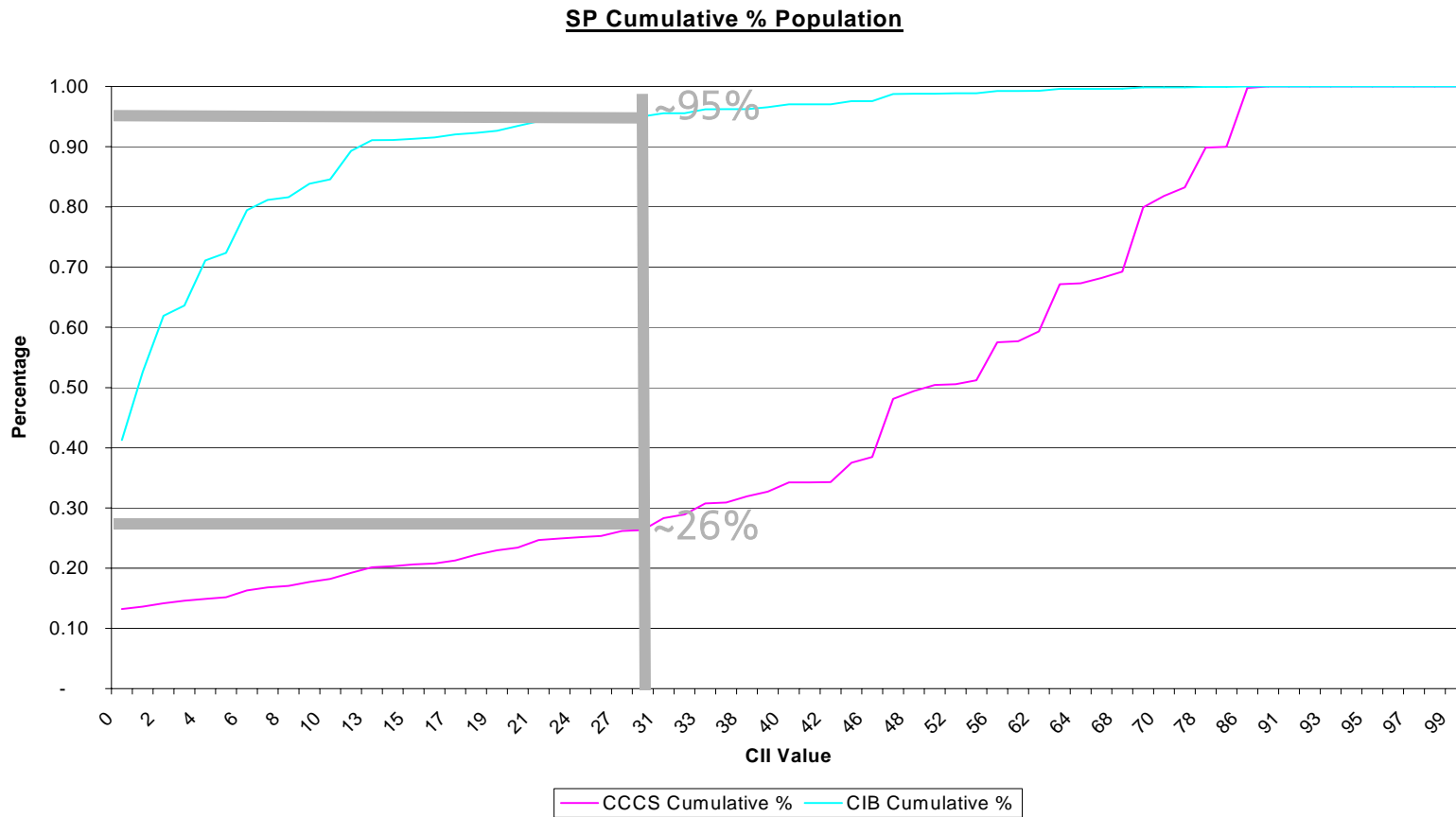


Credit applicants with high balances (>£2k)



- Consumers approaching CCCS in 1 month analysed (~3,000)
- Credit bureau data (including CII) attached retrospectively at 3 monthly intervals over previous year
- Analysis
 - Compare CII profile of indebted cases with general population
 - Could lenders have made better decisions?

CII Comparison



- **Standard Good/Bad Definition**
 - **Bad** - current delinquency 3+
current delinquency = 2 and overlimit
 - **Indet** - current delinquency = 2
current delinquency = 1 and worst delinq L24 > 1
overlimit
 - **Good** - current delinquency = 0
current delinquency = 1 and worst delinq L24 = 1

- **Affordability-based Good/Bad Definition**
 - **Bad** - currently classified as 'bad' or CII at outcome = 50+
 - **Indet** - currently classified as 'indet' or CII at outcome = 30 - 49
 - **Good** - all other accounts

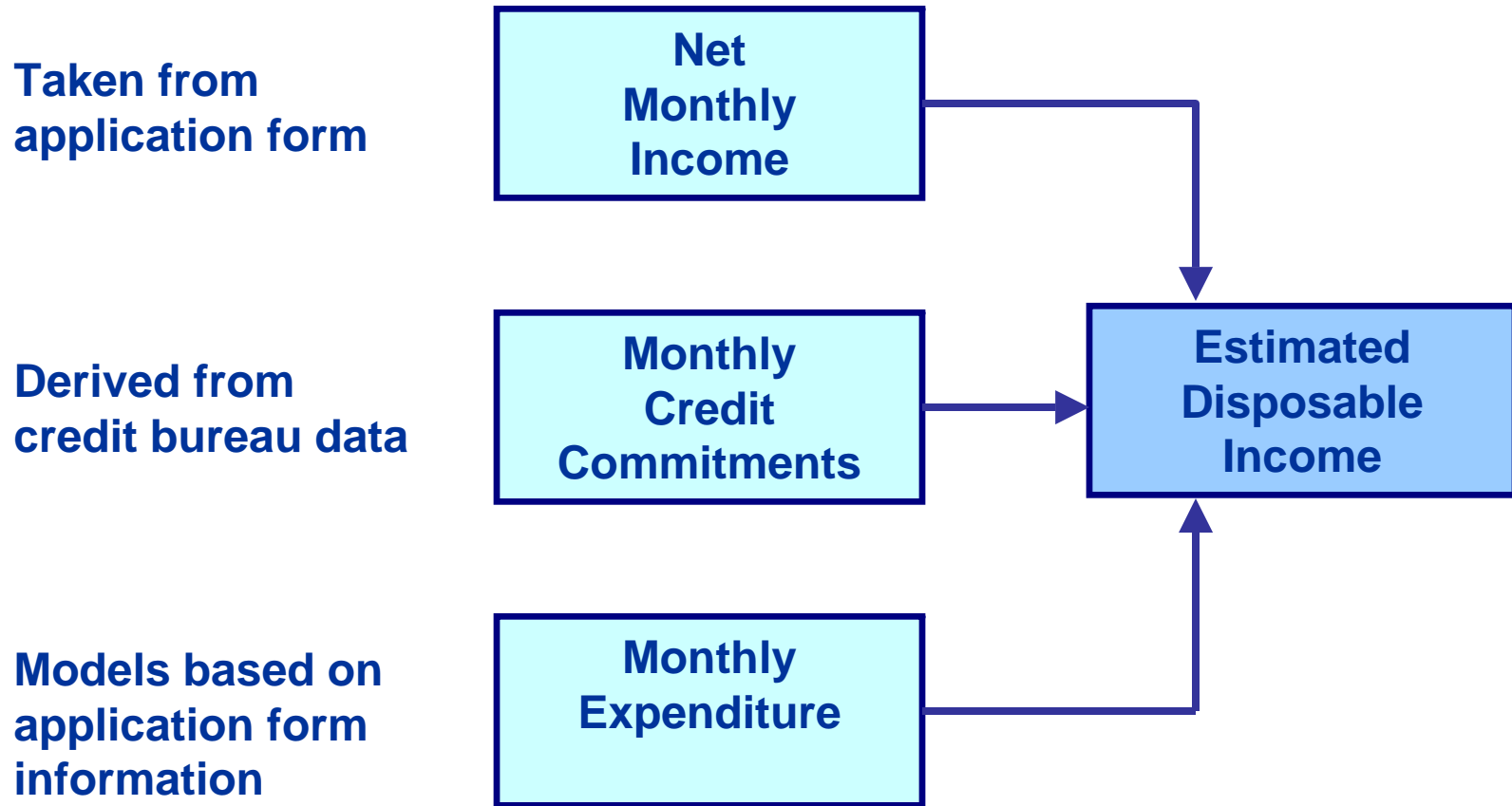
- Applicants very highly indebted at outcome (CII 50+)

	Accept Rate	# Accepts	Change
Current scorecard	25.9	659	—
Standard methodology	14.8	378	-42.6%
Affordability-based methodology	9.7	247	-62.5%

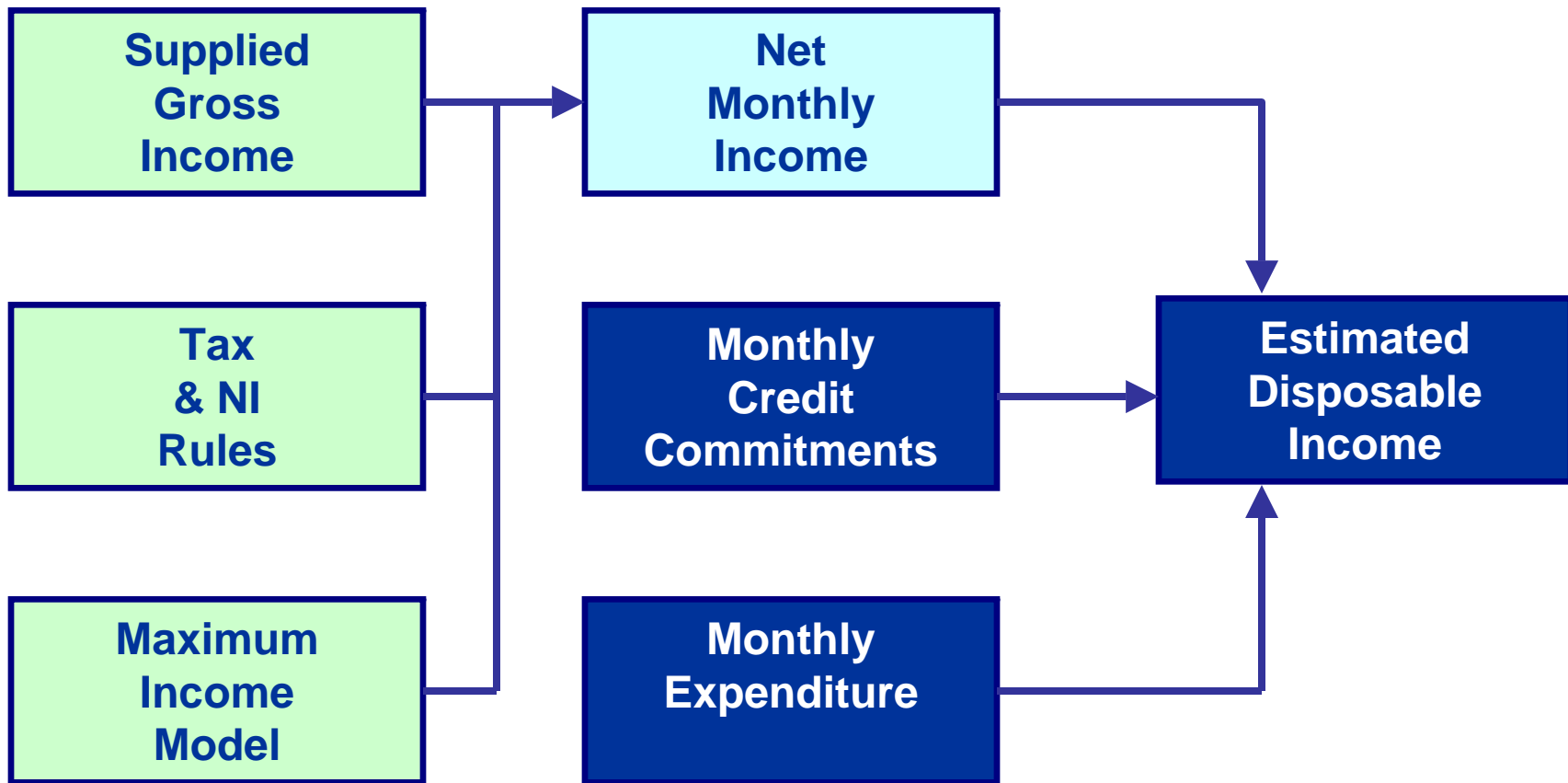
Agenda

- The headlines
- UK credit market and indebtedness
- Industry initiatives
- Measuring consumer indebtedness
- Affordability and customer value management
- Conclusions

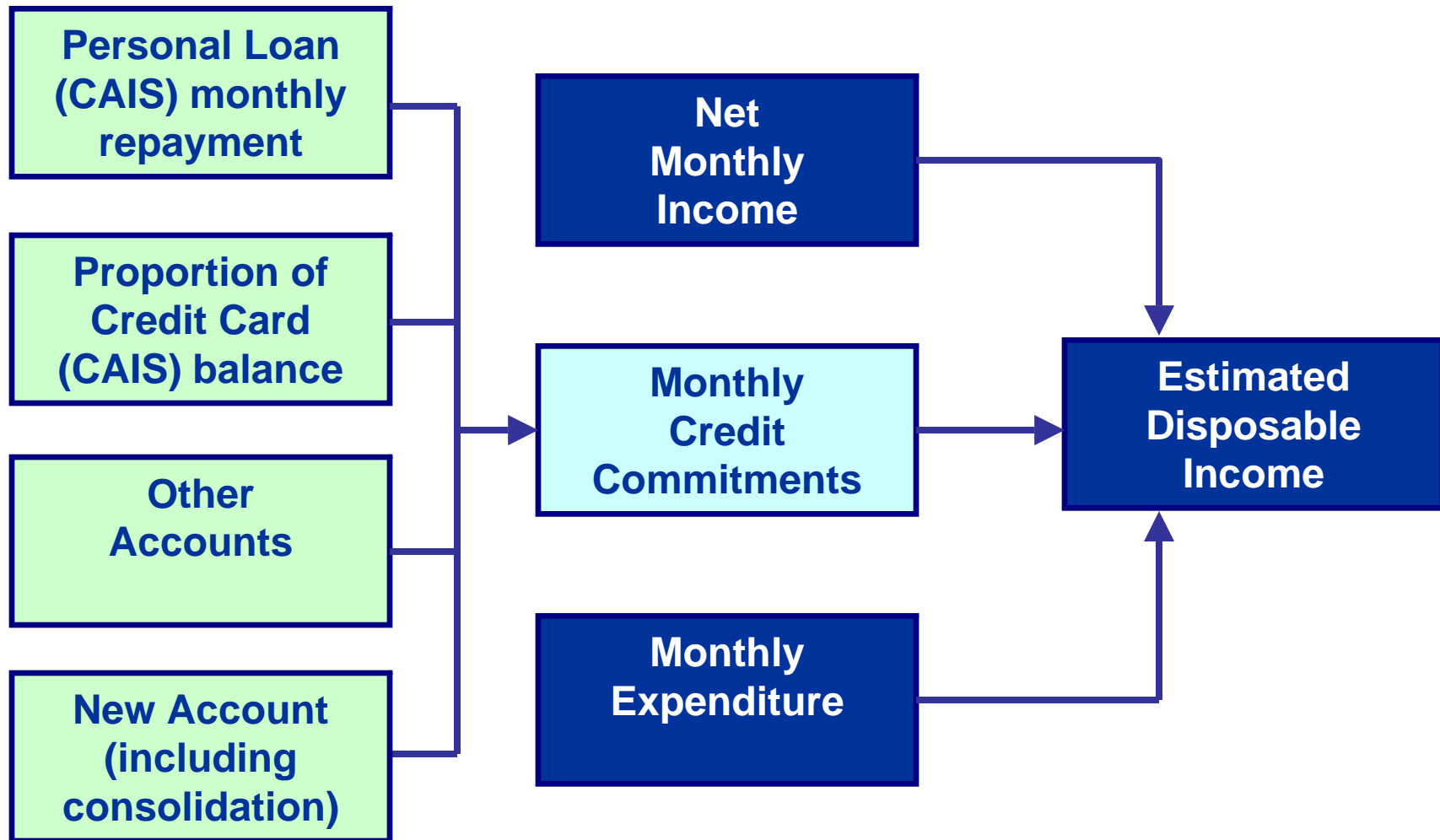
Estimated Disposable Income



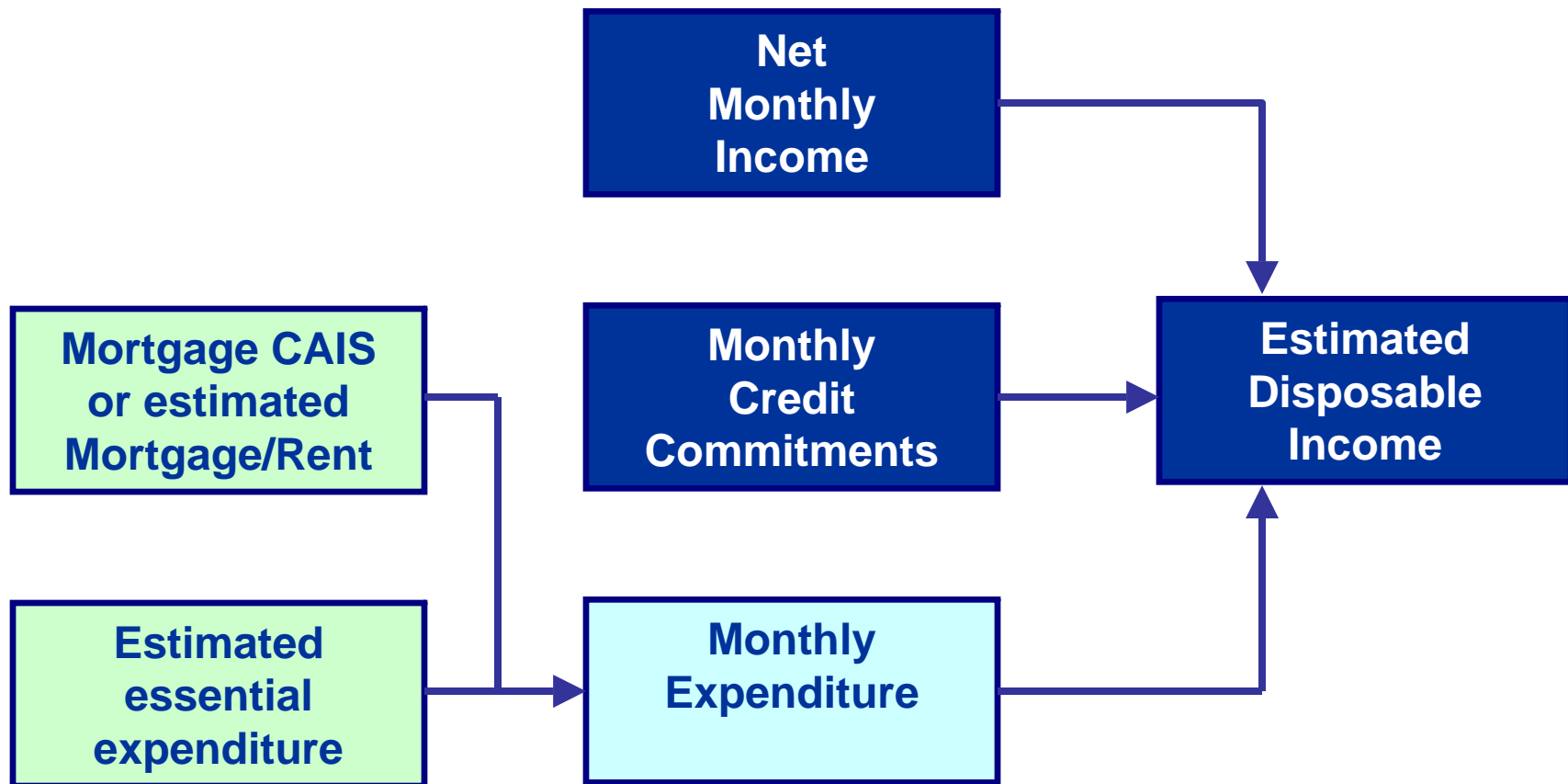
Estimating Disposable Income



Estimating Disposable Income

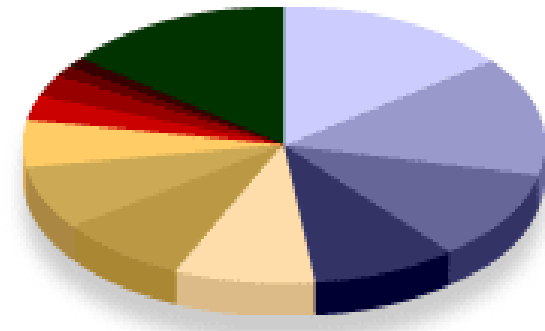


Estimating Disposable Income



- Random sample of 12,096 Households with responses from 6,809 Households
- Response rate of 62%
- Weekly expenditure amounts
- Diary entries for 2 weeks
 - Adults
 - Children
- Household and personal level values converted into totals for "Financial Units"

WHAT THE AVERAGE HOUSEHOLD SPENDS IN A WEEK



SOURCE: ONS

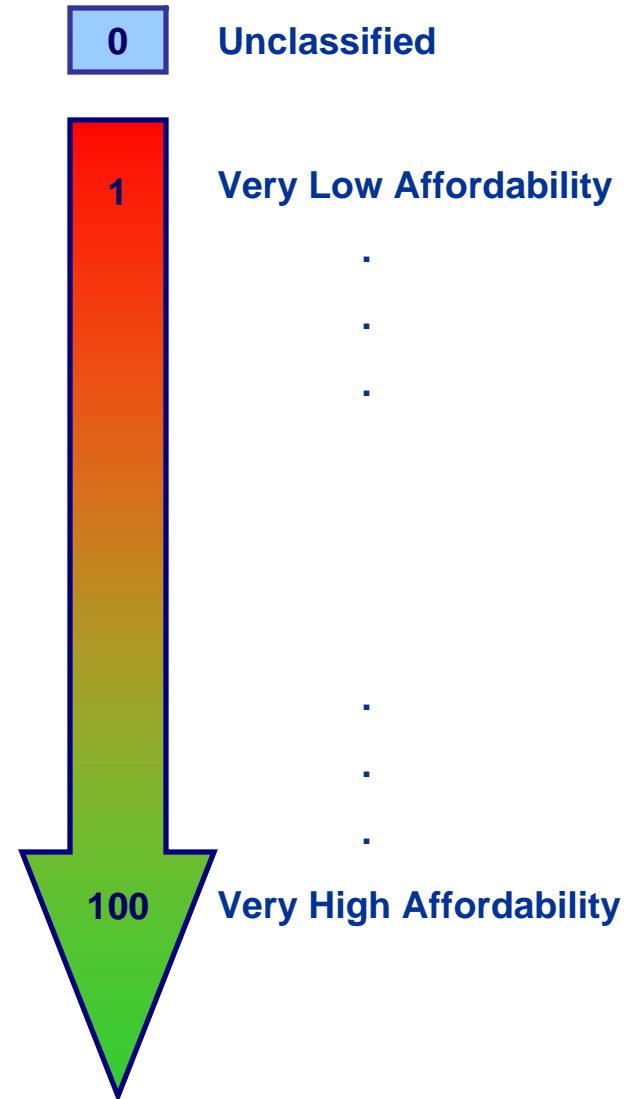
Transport:	£59.20
Recreation and culture:	£56.40
Food:	£42.70
Housing and energy:	£36.90
Restaurants and hotels:	£35.40
Misc goods and services:	£33.10
Household goods:	£30.20
Clothes and shoes:	£22.30
Alcohol and tobacco:	£11.40
Communication:	£10.60
Education:	£5.20
Health:	£4.80
Other:	£57.90
TOTAL:	£406.20

Expenditure Models

Financial Units	Sub-pops	Models		
		Mortgage	Rent	Expenditure
Grown-up Children	-	X	X	✓
Pensioners	Owners	✓	X	✓
	Renters	X	✓	
Singles	Owners	✓	X	✓
	Renters	X	✓	
Working Families	Owners	✓	X	✓
	Renters	X	✓	
Low Income Households	Owners	✓	X	✓
	Renters	X	✓	

- Key Predictors**
- ◆ Age
 - ◆ Income
 - ◆ UK region
 - ◆ Council Tax band
 - ◆ Time at address
 - ◆ # Children
 - ◆ Single parent

- Builds on CII using income and other personal data
- AI is score-based using:
 - Estimated disposable income
 - Consumer Indebtedness Index
 - Residential/Marital Status
 - Net Monthly Income (NMI)
 - Monthly Credit Commitments as a % NMI
 - Monthly Mortgage Payment as a % NMI
 - Applicant's Age
- AI is tuned to 'potential accepts' – not the through-the-door population



Affordability Index case study

Results - standard cut off

App. Score	G:B Odds	Accept Rate
Decile 1	5.5	1.3
Decile 2	7.2	2.0
Decile 3	9.7	7.2
Decile 4	8.9	23.5
Decile 5	11.2	42.6
Decile 6	13.4	51.6
Decile 7	24.6	61.1
Decile 8	41.0	68.7
Decile 9	80.5	76.8
Decile 10	239.5	84.6

Traditionally a cut-off decision has been driven by a requirement to accept a certain quality of applicant, as defined by the GB odds, or have an accept rate in line with the company's growth plans.

Gini Coefficient = 49.4

Results - Affordability Index

AI	G:B Odds	Accept Rate
Lo – 68	5.5	10.0
69 – 76	10.7	24.6
77 – 89	18.5	33.5
90 – 94	40.4	55.5
95+	112.1	79.9

The Affordability Index is a highly predictive characteristic in its own right.

Gini Coefficient = 46.7

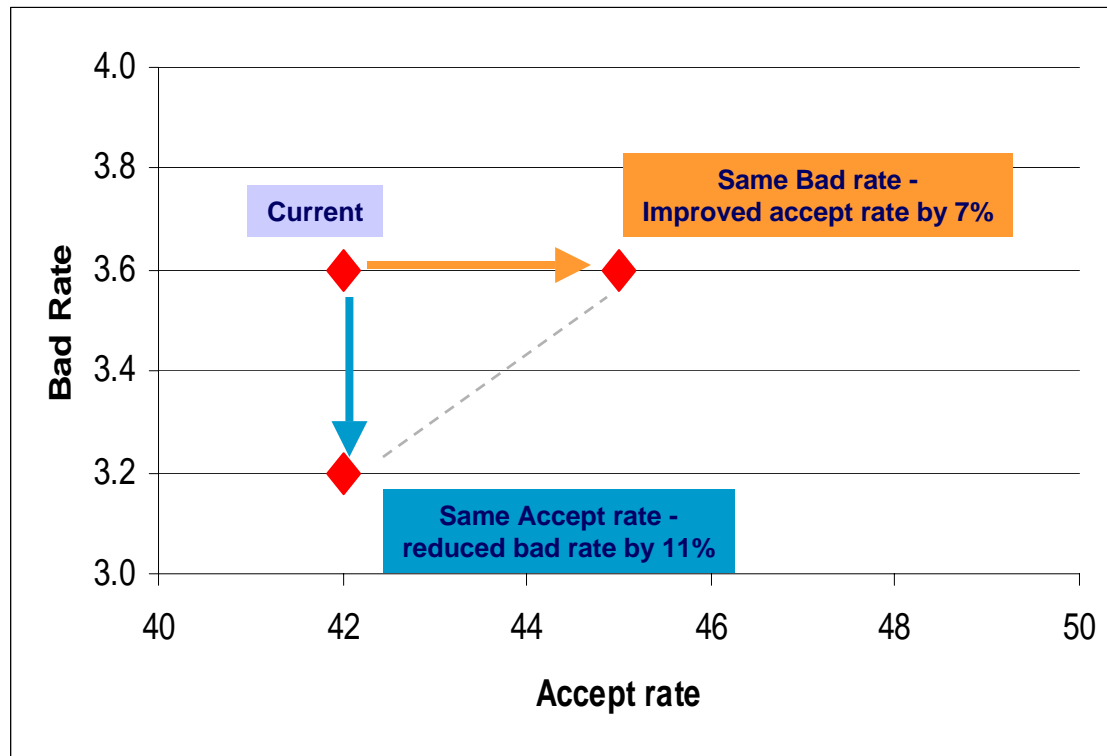
Affordability Index case study

Results – G:B Odds misalignment

App. Score	AI					Total
	Lo – 68	69 – 76	77 – 89	90 – 94	95+	
Decile 1	3.2	8.0	6.9	1.5	-	5.5
Decile 2	4.4	4.5	10.7	5.8	4.4	7.2
Decile 3	9.9	9.9	9.0	6.6	-	9.7
Decile 4	4.9	7.2	8.1	21.1	30.7	8.9
Decile 5	4.3	8.4	11.6	19.9	26.5	11.2
Decile 6	5.5	8.8	11.8	21.3	90.8	13.4
Decile 7	5.0	12.4	23.5	32.9	83.3	24.6
Decile 8	8.0	15.9	41.1	54.4	68.4	41.0
Decile 9	-	24.4	48.0	99.4	138.5	80.5
Decile 10	-	-	93.1	617.4	252.2	239.5
Total	5.5	10.7	18.5	40.4	112.1	26.1

Using the Affordability Index, it can be shown that at the given cut-off there are large differences in the quality of the population.

Results - potential improvements



Through the use of the Affordability Index, we can significantly reduce the bad rate or increase the accept rate.

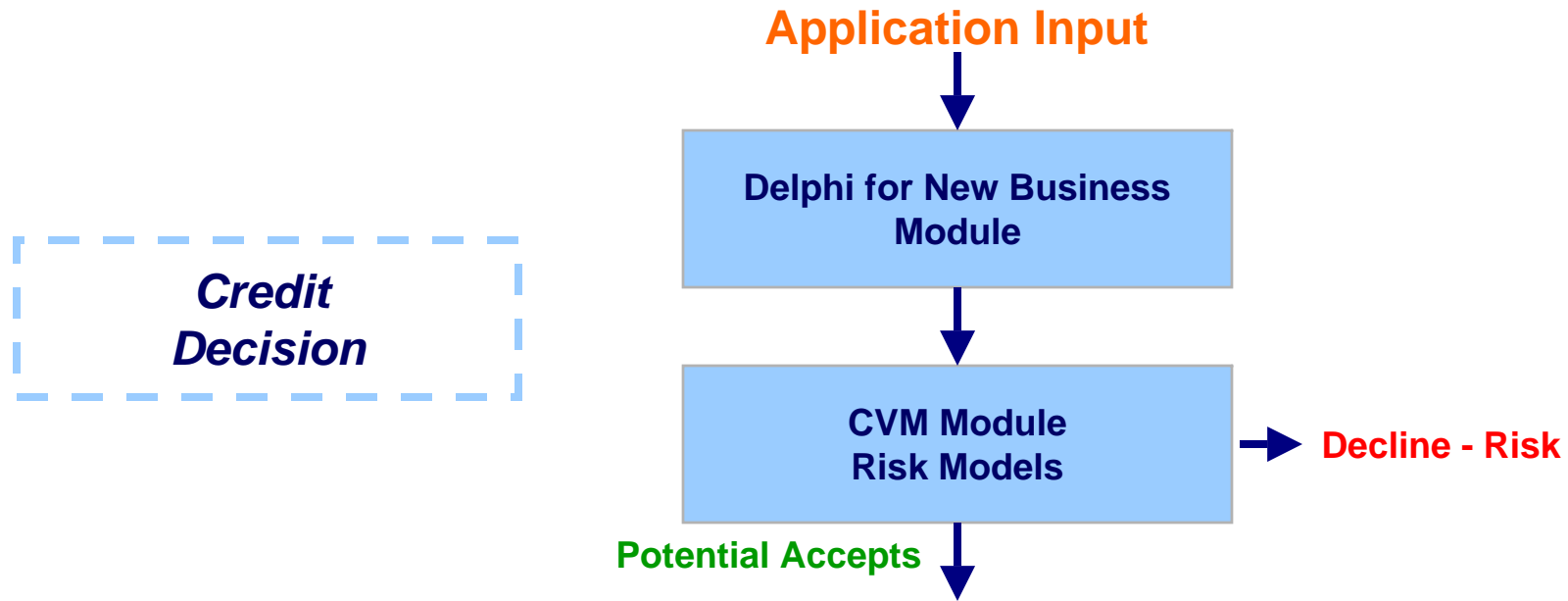
Estimated Disposable Income as a % of Net Monthly Income

EDI / NMI %	% New A/cs
≤ - 50%	1%
-49 to - 1%	14%
0%	10%
1 - 10%	15%
11 - 20%	20%
>20%	40%

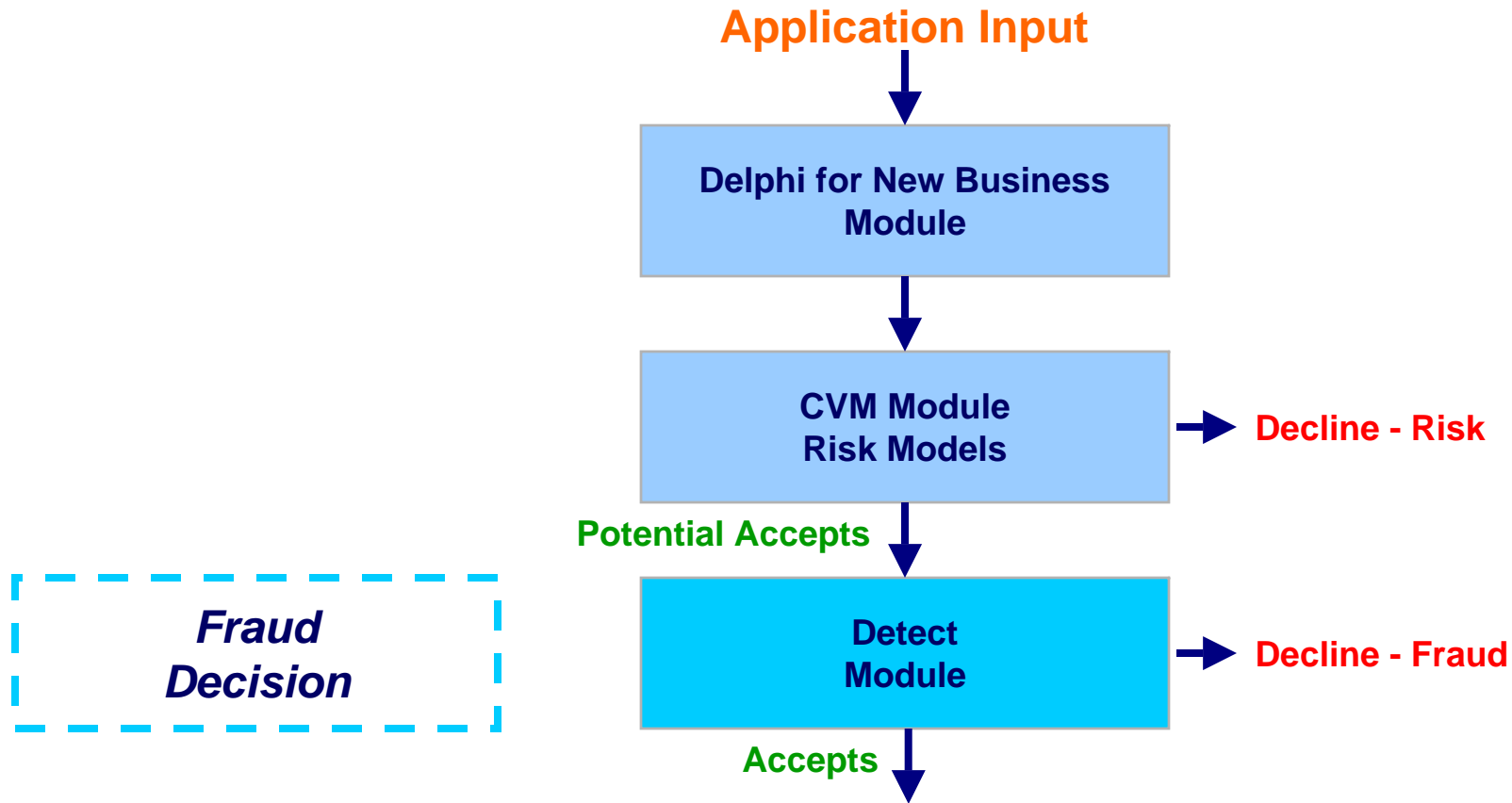
EDI/NMI % is not predictive of good/bad, but is another measure of affordability.

Small group with very low affordability. Large group with high affordability.

New credit application process



New credit application process

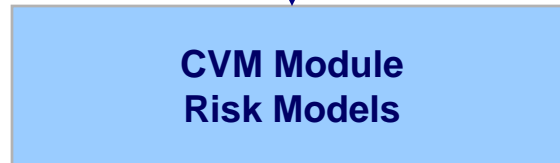


New credit application process

Application Input



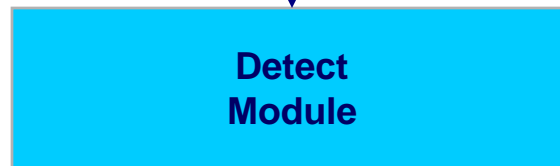
Delphi for New Business Module



CVM Module Risk Models

Decline - Risk

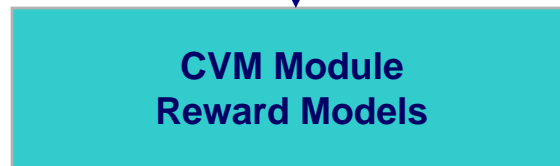
Potential Accepts



Detect Module

Decline - Fraud

Accepts

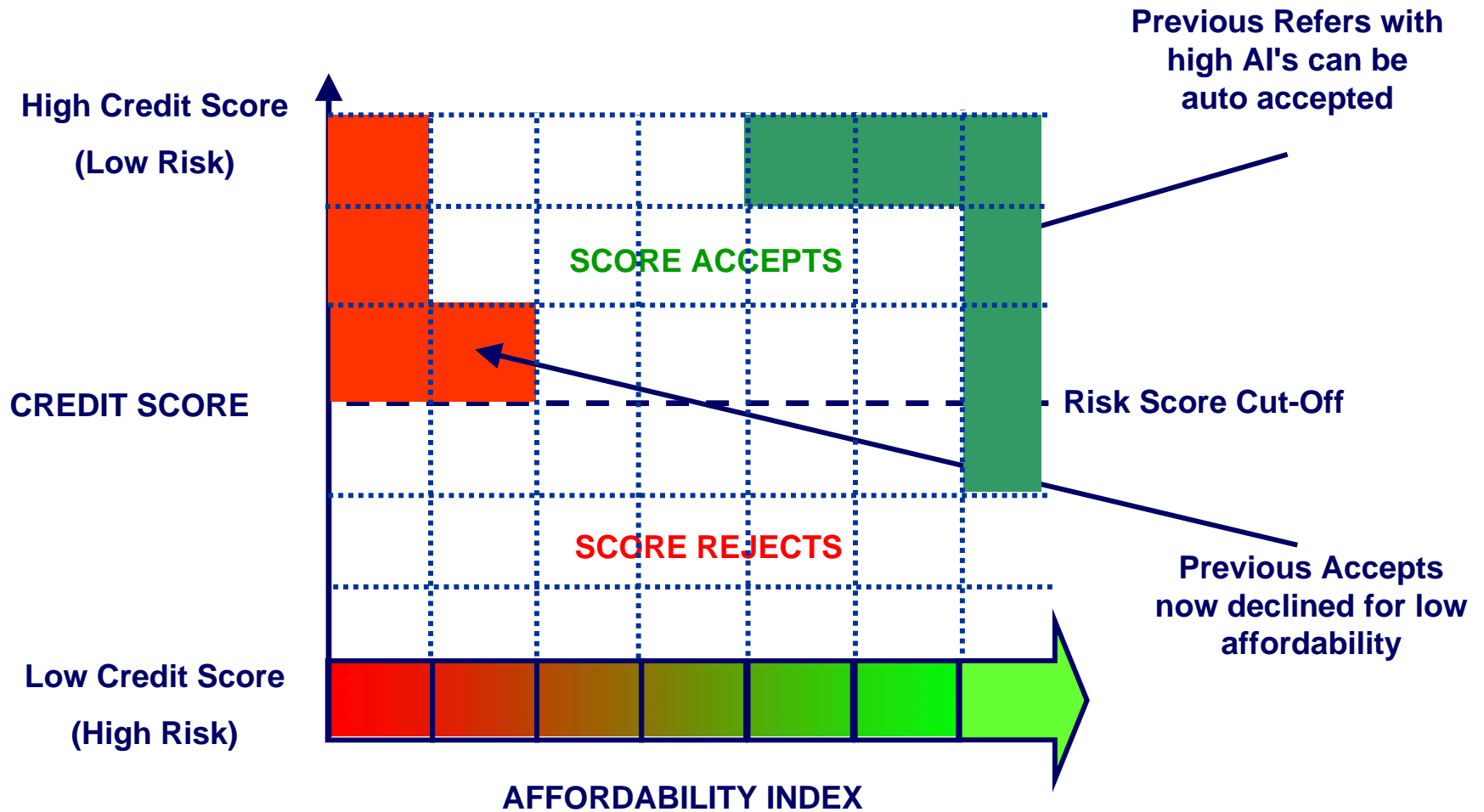


CVM Module Reward Models

Up-Sell / Cross-Sell Decision

Take most appropriate up-sell/
cross sell action

Using the AI with the credit risk score



Agenda

- The headlines
- UK credit market and indebtedness
- Industry initiatives
- Measuring consumer indebtedness
- Affordability and customer value management
- Conclusions

- Sharper focus on indebtedness
- Increased pressure to demonstrate responsible lending
- Credit bureau data provides a more complete picture
- More than just data sharing
- Analytics will be vital in making sense of the data

Over-indebtedness & responsible lending in the UK

Dr Paul Russell

Director - Analytical Solutions

www.experian-scorex.com

paul.russell@uk.experian.com