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Augmenting Credit Risk and Affordability Solutions with Credit Balance Information

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Introduction

Every month organisations that are part of the Current Account Turn Over (CATO) forum provide Credit Reference Agencies (CRAs) with an aggregated view of total credits that their customers have received into their Current Account within that month



CRAs combine this data across Current Account providers to create a view of an individual's income that can be used by lenders within Affordability journeys which include Income Verification, Income & Expenditure assessments and Risk Decisioning



CATO providers can also send a monthly balance within these submissions



TransUnion ignore this when the balance is positive (or a credit balance) since it's not widely reported



This analysis demonstrates some of the value that CRAs can provide to lenders by utilising this data within Credit Risk & Affordability assessments

Methodology

Current Account submissions extracted as at June 2024, with end of month balance values for last 2 years. Any negative balances have been set to £0 to avoid duplication with overdraft information that is already used by our products – focus on positive information only

703,653 Credit Card originations from July 2024 have been assessed, using a 2+ missed payments within first 10 months on book as an outcome definition

Balance data has been utilised to create a series of customer level attributes that could be appended onto the originations file at observation date, including;

Current
Balance

Min/Max/
Average
Balance L6m

Balance Now
vs 6m Ago

Min Balance
L6m vs Credit
Card Limit of
origination

Balance to
Income

Monthly Spend

Calculation Examples – For Illustrative Purposes Only

Customer	Account	CATO Provider	Turn Over 1	Turn Over 2	Turn Over 3	...	Turn Over 24	Balance 1	Balance 2	Balance 3	...	Balance 24
1	1	A	2200	2000	2200	...	1600	200	600	100	...	300
1	2	A	300	500	1000	...	200	1200	1100	1000	...	100
1	3	B	500	500	500	...	500	0	0	0	...	0
1	4	C	0	0	0	...	0	0	0	0	...	0

Affordability variables calculated at aggregated customer level view

Monthly income is calculated using proprietary TU logic based on historic Turn Overs (already available in TU products)

Balance metrics calculated using balance information from individual's primary account

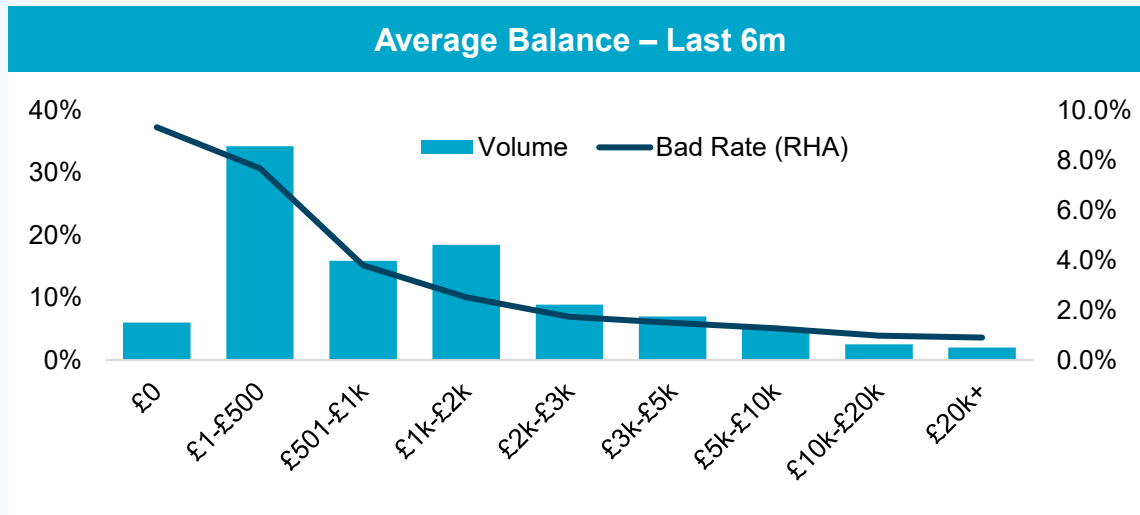
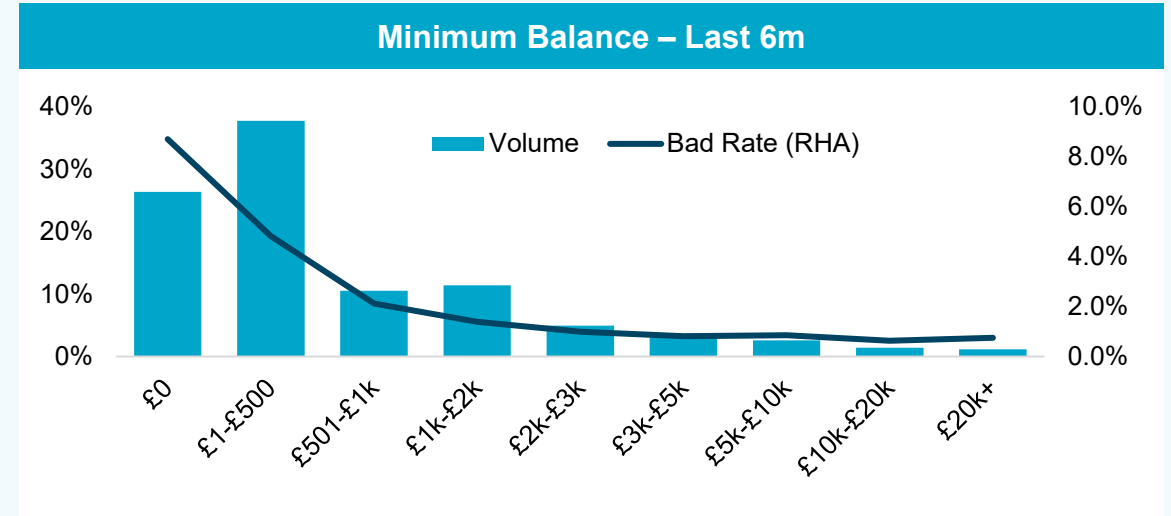
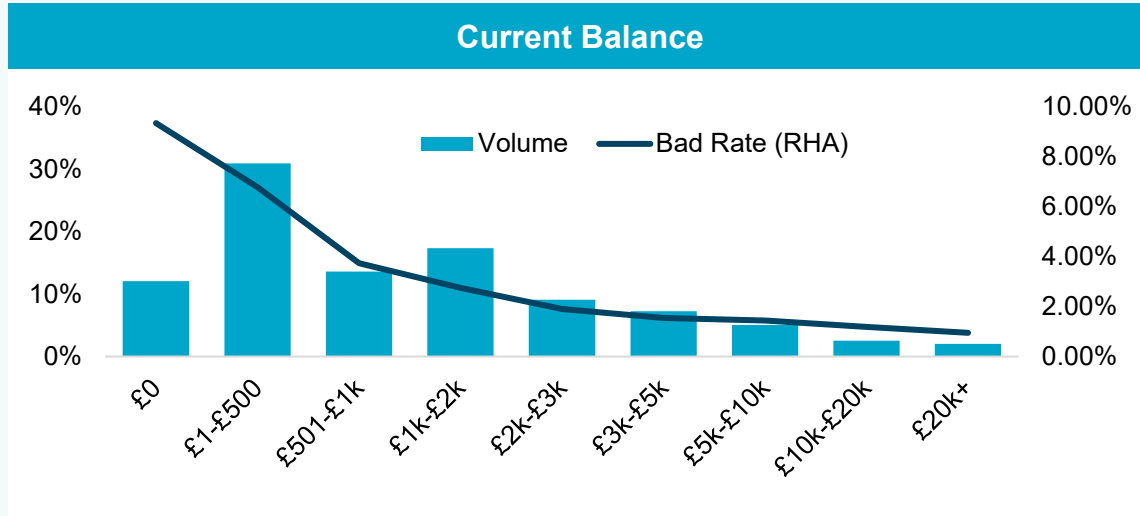
Spend calculated for each month x as $Spend(x) = Turnover(x) - (Balance(x) - Balance(x+1))$

Spend metrics aggregated across all accounts

Customer	Monthly Income (Already Exists)	Current Balance (Primary Account)	Min Balance L3M (Primary Account)	Max Balance L3M (Primary Account)	Average Balance L3M (Primary Account)	Balance to Income Ratio (Primary Account)	Spend Current Month (All Accounts)	Min Spend L3M (All Accounts)	Max Spend L3M (All Accounts)	Average Spend L3M (All Accounts)
1	2100	200	100	600	300	10%	3300	2400	3300	3000

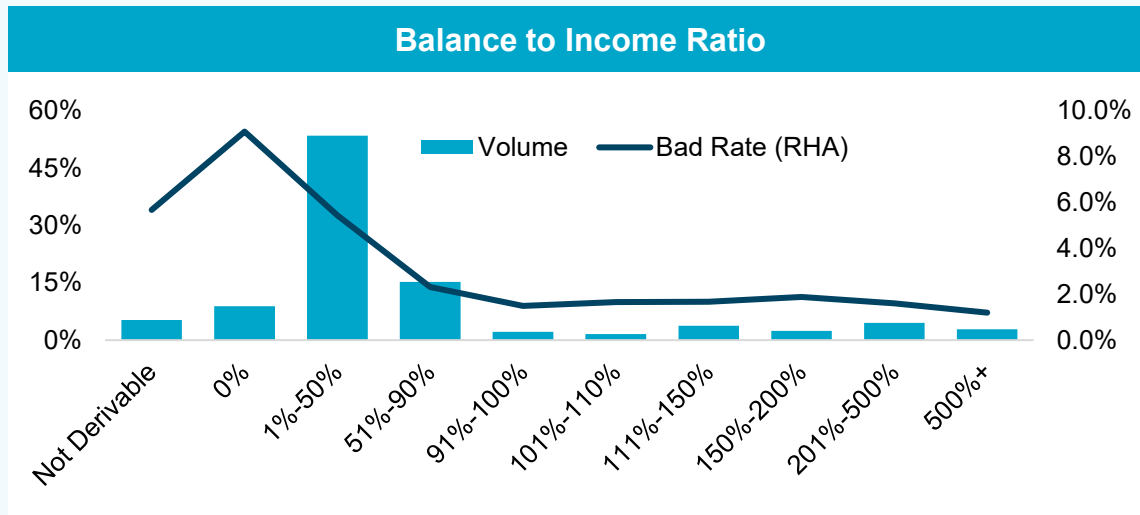
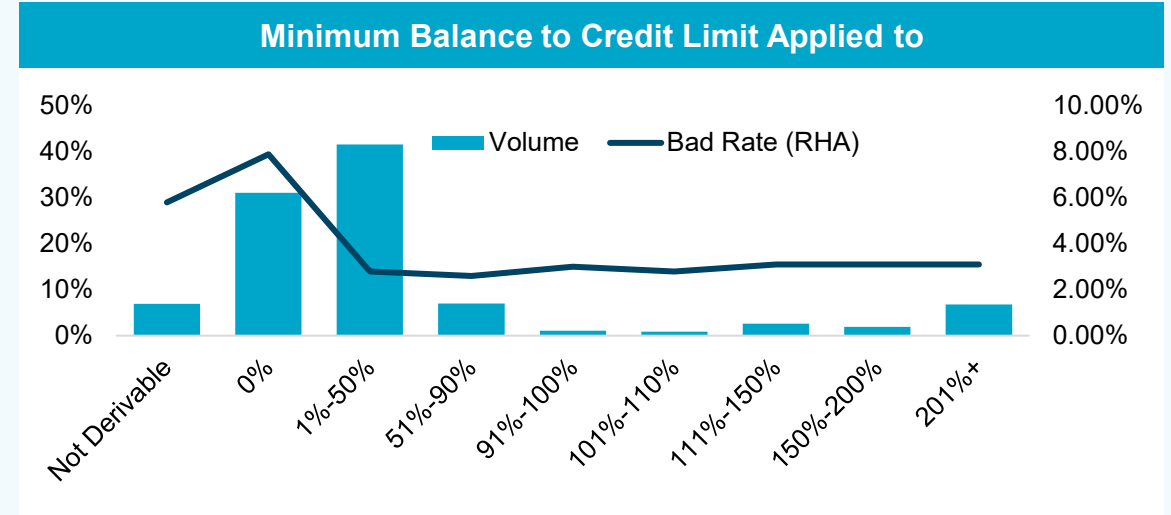
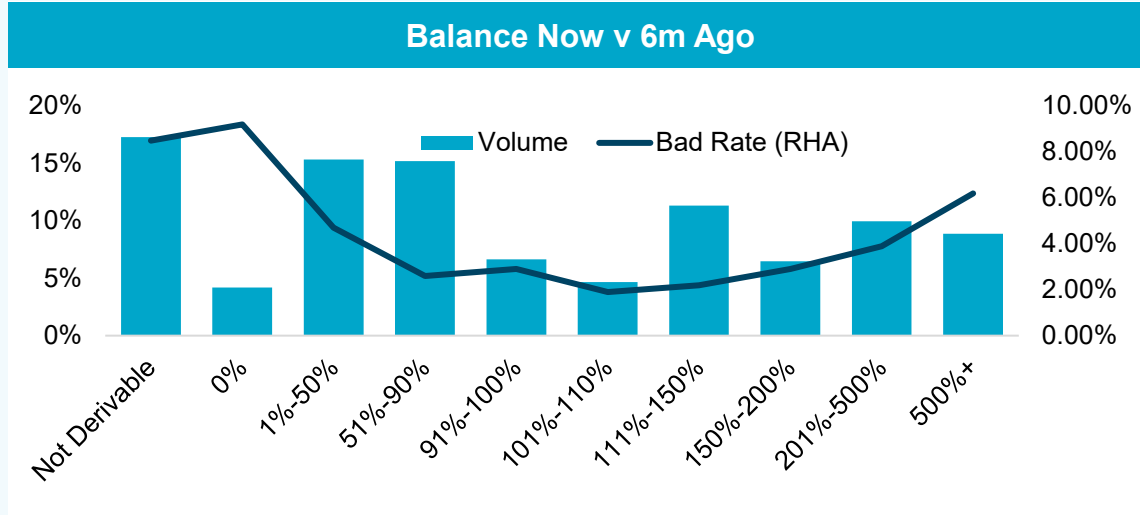
Source: TU analytics and SHARE data sample

Attribute Profiles – Balance Values



All balance views show a good prediction in performance, where the higher the balance held in a current account, the lower the risk

Attribute Profiles – Ratios



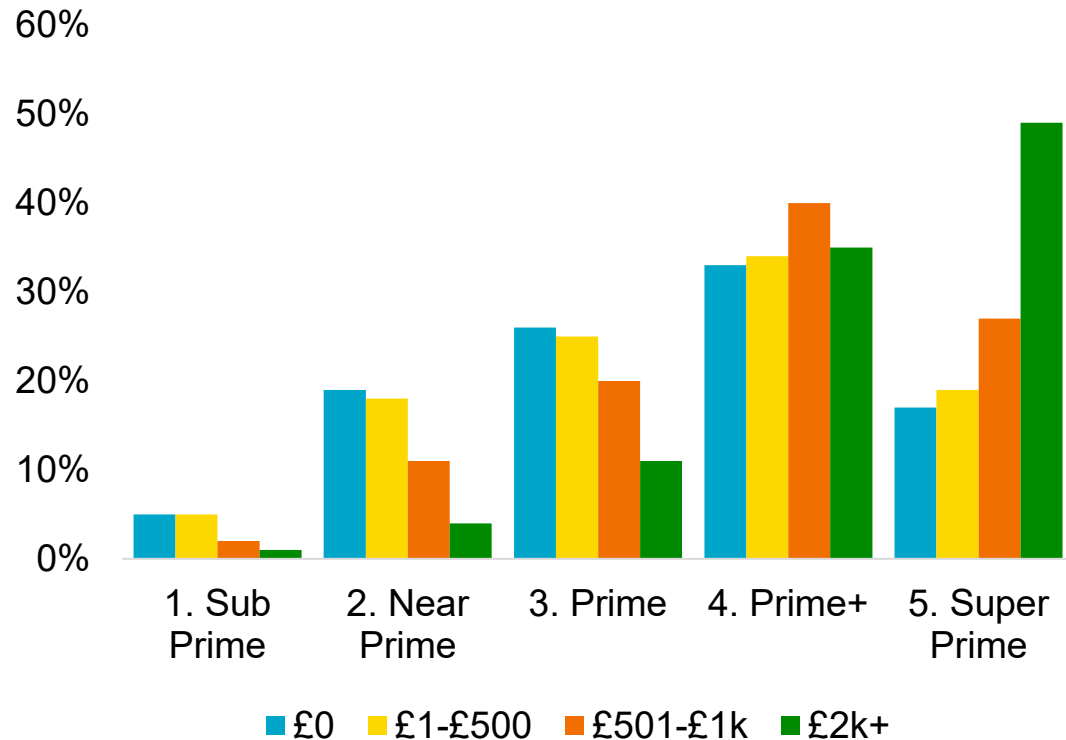
Consumers with stable balances show lowest risk. Changing balances even as balance growth show heightened activity and risk within a consumer wallet

9% of consumers have a minimum balance that is >1.5x the limit they applied for

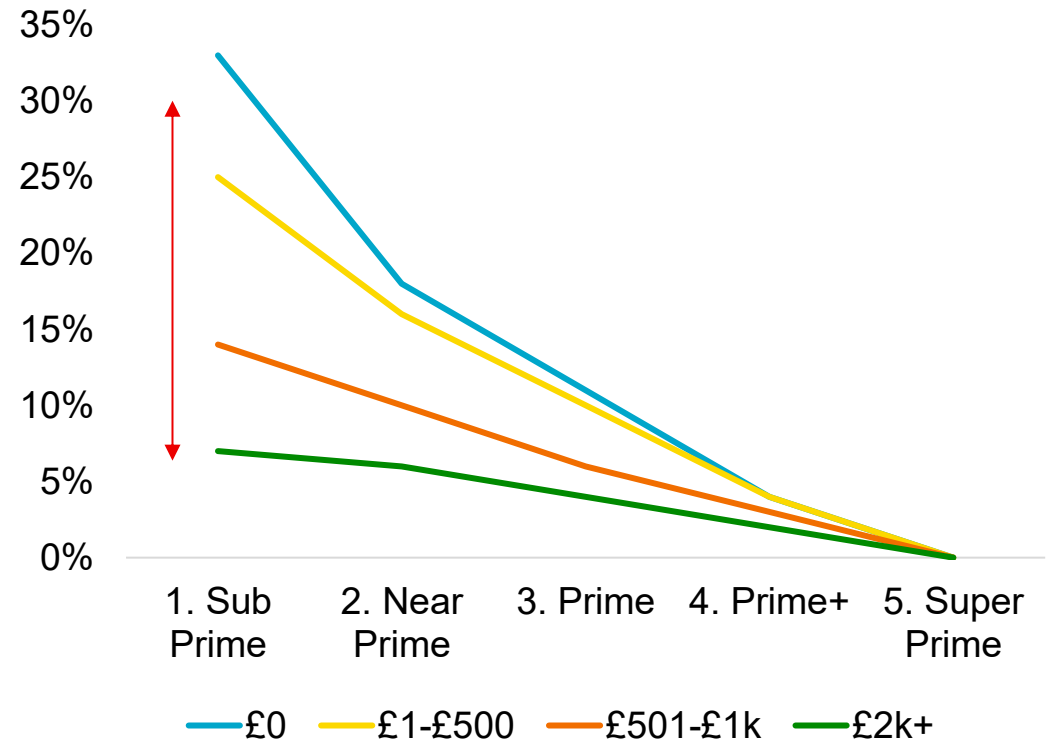
Attribute Overlays

Average Balance is offering differentiation within comparable credit risk score bands

Distribution of Average Balance by Risk Band



Bad Rate of Average Balance by Risk Band



Source: TU analytics and SHARE data sample

Attribute Overlays - Affordability

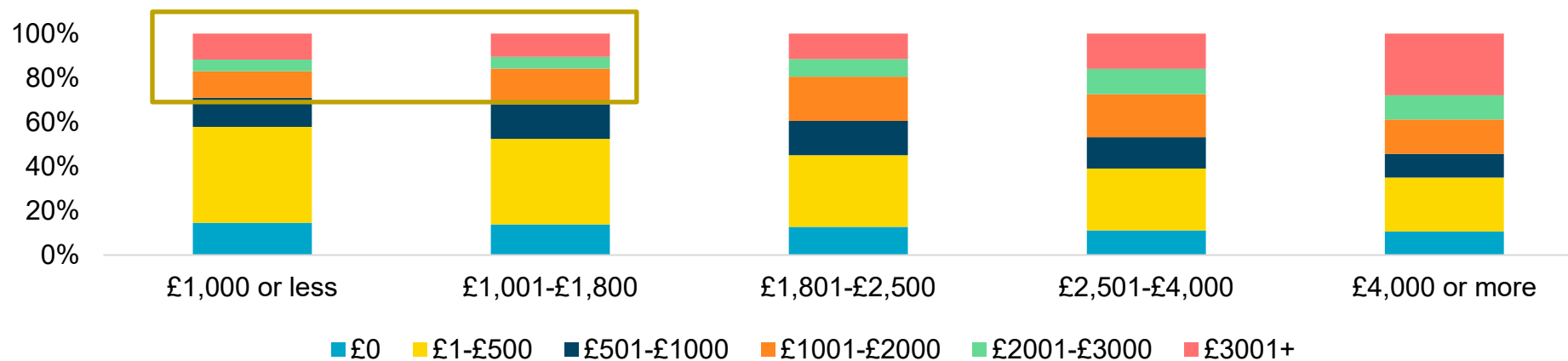
Balance can be used in conjunction with traditional affordability measures

Min Balance to New Limit by I & E RAG

Income & Expenditure RAG	0%	1%-50%	51%-90%	90%-110%	111%-150%	151%+
Green	28.5%	32.3%	5.6%	1.6%	2.1%	6.8%
Amber	1.6%	1.9%	0.3%	0.1%	0.1%	0.3%
Red	5.4%	5.6%	0.8%	0.2%	0.3%	1.1%
No Data	2.5%	1.7%	0.3%	0.1%	0.1%	0.5%
Grand Total	38.1%	41.6%	7.0%	1.9%	2.6%	8.8%

2.5% of consumers failing affordability where balance capacity is evident

Current Balance by Income



6.4% of consumers show low income by higher current account balances

Source: TU analytics and SHARE data sample



Use in Scorecards

Attribute	Information Value	Without Credit Balance	With Credit Balance
Total available balance of open accounts verified in past 3 months (excluding instalments and mortgages)	0.708	X	X
Minimum Monthly Credit Balance on Primary Account in Last 6 Months	0.577		X
Max aggregate Credit card Utilisation over the last 12 months	0.562	X	X
Percentage of accounts ever delinquent (status 1+)	0.513	X	X
The number of months since any Credit card went over limit. This calculation observes the last 24 months of account history.	0.382	X	X
Missed payments ratio last 12 months	0.359	X	X
Months since oldest revolving account opened	0.344	X	X
Utilisation for open financial trades verified in past 12 months (excluding mortgage and home equity)	0.343	X	X
Average Monthly Credit Balance on Aggregated Accounts With Primary Provider in Last 6 Months	0.315		X
Reduction in Debt Collection Balance v Previous Month	0.281	X	X
Months since oldest account opened	0.268	X	X
Percentage of all financial accounts opened in past 24 months to all accounts	0.136	X	X
Number of accounts opened in past 6 months	0.088	X	X

- Scorecards built using credit risk data with and without Credit Balance attributes
- 2 Balance attributes entered the 'with' model with 1 being 2nd most predictive

Scorecard Results

Score	Gini	Bad Rate Above Cutoff
Generic Credit Risk Score	60.0%	1.6%
Bespoke Credit Risk Score (Without Credit Balance)	60.2%	1.6%
Bespoke Credit Risk Score (With Credit Balance)	62.5%	1.4%

- Scorecard built using Credit Balance data provides 2.3 Gini points uplift
- 0.2% reduction in bad rate when credit balance data used in scores, whilst maintaining same accept rate

Example Risk Strategy – Accept Rate Increase

Basic rules where repayment capacity is evident can increase accept rate by 3%

Current Prime Card Strategy				
Rule	% Total	Average Limit	Total Limit Lent	Bad Rate
Total	100.0%	£ 3,531	£2.5bn	4.6%
1. Decline Derogatory	13.8%	£750	£72m	14.2%
2. Score Fail (Sub Prime to Prime)	23.7%	£1,451	£242m	7.5%
3. Fail Affordability (A,R,X)	28.5%	£4,840	£972m	1.5%
Rule	Volume	Average Limit	Total Limit Lent	Bad Rate
Total Accepts	34.0%	£5,011	£1.2bn	1.4%

Additional Swap In's				
Rule	Volume	Average Limit	Total Limit Lent	Bad Rate
Total	100.0%	£ 3,531	£2.5bn	4.6%
1. Pass Score, Fail Affordability, Min Bal to Lending >150%	2.2%	£2,756	£42m	1.4%
2. Score >Sub Prime, Pass Affordability, Min Bal to Lending >200%	0.7%	£1,075	£5m	3.6%
Rule	Volume	Average Limit	Total Limit Lent	Bad Rate
New Accepts	2.8%	£2,363	£47m	1.9%

Source: TU analytics and SHARE data sample

Spend: Potential issues

Negative spend value – how accurate is this data?

We found with some accounts that we got a negative spend value. This is where the balance increased by more than the actual Turnover value.

Example:

Turnover1 = £500

Balance1 = £1500

Balance2 = £750

Spend = £500 – (£1500 - £750) –
so we get a spend figure of -£250

The issue here is that there are some bank payments that are not recorded in Turnover submissions from the CATO providers – e.g., internal transfers between two accounts owned by the same individual. This casts some doubt over the spend values.

This issue is more common in secondary accounts (e.g., a joint account used for bills) – by working out an individual's primary account we can minimise these cases.

Next Steps

- Investigate further into spend metrics
 - How predictive are they
 - How reliable is the calculation
- Build out further attributes to gain a more complete view of the data
- Explore further use cases
 - Greater overlay with affordability and credit risk
 - Client testing
 - Fraud - Identifying re-activation of facilities
- Longer Term Issues to address
 - Compliant use of the data
 - Consistency in reporting

Q&A

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Thank You

