

GLOSSARY OF TERMS

Extracted from 'Principles and Practice of Consumer Credit Risk Management' by Helen McNab and Anthea Wynn

A

Acceptance rate: The percentage of the total applications that are accepted.

Accepts: Those applications that pass the credit review process.

Account management: Wide-ranging operational function dealing with customers during the active life of their account(s), i.e. while their account(s) are in order.

Account management scorecard: A statistically-derived behavioural scorecard(s) developed for predicting the future risk on accounts that are currently in order; generally used for setting credit, shadow and target limits, and for authorizations decisions.

Acquirer: An organization that recruits a retailer who then accepts credit card transactions. Usually a bank.

Actuary percentage: The proportion of the outstanding balance of a product that the lender expects will not be repaid. Used in provision estimation.

APACS: Association of Payment Clearing Services. The umbrella body for the UK payments industry.

Application data: The information available about an applicant that is taken from the application form.

Application processing: Operational function dedicated to the timely processing of new applications in line with company lending policies.

Application processing system: A computer system or software, which automates all stages of the credit review process. It can include validation checks, policy rules and on-line credit referencing. It may be run on a mainframe or on personal computers (either singly or networked).

Application score: The score calculated at the time of

application. Some organizations use this term for the score based on the application data alone (i.e. excluding scorecard characteristics that use credit bureau data).

Application scoring: A statistically-derived model that predicts the credit risk for applications if they are accepted. It comprises a scorecard and a set of associated statistics for interpreting score in terms of risk. The traditional term for this was *credit scoring*.

Ascending cumulative statistics: A table derived from a scorecard development, which shows, for any score or scoreband, the cumulative percentage of applicants expected to achieve that score or lower.

Attribute: An item of information about an applicant or an account holder. A range or set of these items is interrelated to form a characteristic. For example, 'tenant' is one attribute of the characteristic 'residential status'.

Attribute strength: The measure of an individual attribute's ability to discriminate between any two outcomes (usually good and bad).

Attrition: Accounts that become inactive, dormant or close.

Attrition scoring: A form of behaviour scoring in which the predicted outcome is the likelihood of an account becoming dormant or closing in the near future. Used by marketing departments to retain good customers.

Augmentation: see *reject inference*.

Authorizations: The process whereby the credit card issuer permits, or declines to permit, a new cardholder transaction.

B

Bad rate: The percentage of accounts that perform in an unsatisfactory manner as defined by the good/bad definition that was used in the scorecard development.

Bads: Accounts with unacceptable repayment behaviour. The credit grantor is unlikely to transact any future business with these account holders.

BBA: British Bankers Association. The trade body for the banking and financial services industry.

Behavioural scoring: A statistically derived model for predicting a specific dimension of future behaviour on an existing account. Models can be designed to predict, for

example, risk, attrition, churn, propensity, response and revenue. The score is recalculated regularly (typically monthly) and can be used to make decisions on marketing, authorizations, limit setting and debt collection/recoveries activities.

Benchmarking consortium: Industry group that seeks to set benchmarks of best practice/performance for a given industry/sector.

Break-even odds: The ratio of the number of good accounts needed to balance the losses generated by one bad account.

BSA: Building Societies Association. The trade body for UK building societies.

C

CAB: Citizens Advice Bureau.

CAIS: A UK proprietary payment history system used for sharing financial account information. The acronym stands for 'Credit Account Information Sharing'.

Can't pays: Debtors who have defaulted on payments because of their financial inability rather than any intent not to pay.

Card schemes: Organizations that manage and control the operation and clearing of plastic card transactions. Issuers must be members of the appropriate schemes to issue cards and acquire merchants. Examples are Visa, MasterCard/Europay and American Express.

Card security code: The last three or four digits of a number printed on the signature panel on the reverse of payment cards.

CCJs: County Court Judgments - a court order to a debtor in serious default that he or she must repay the debt. An English term whose equivalent elsewhere is Judgments, or in Scotland is Decree.

Champion/challenger strategies: An experimental set of two or more competing strategies designed to determine the extent to which a new strategy (challenger) can improve an outcome or performance, when it is tested against the existing (champion) strategy. The experimental strategy is applied in a single decision area, e.g. collections, and can be repeated any number of times with new challengers.

Characteristic: Any data item that could appear in a

scorecard. These can be derived from the application form, internal files or credit references. For example, applicant's age or type of vehicle being purchased.

Characteristic analysis: A regular statistical report that compares the current attribute distribution of a particular characteristic with its corresponding distribution in the development sample. It shows changes in applicant profiles over time. It can also be used for non-scored characteristics.

Characteristic strength: A measure of a characteristic's ability to discriminate between two outcomes (usually good and bad). This is the maximum contribution that the characteristic can make to the scorecard.

Charge-off: A point in the delinquency cycle at which an account in arrears is moved from the main accounts system (i.e. charged-off) to a recoveries system/function.

Chip card: a credit card with an embedded microchip which stores secure data for the purposes of identity validation and transactions authorization.

Churn: The propensity for, and the rate at which, account holders leave one lender to take up a better offer with a competitor.

Classing: Analysis of the predictive strength of a characteristic.

CIFAS -The UK Fraud Avoidance Scheme: A non-competitive, industry-wide information exchange system to help members identify fraudulent applications.

Claimant: The party instigating a court action, usually the lender/creditor.

Cohort: A group of items sharing a common quality, e.g. all accounts opened in the same month. Also known as a *tranche*.

Collections: Operational function dedicated to the process of managing accounts in the early stages of arrears/non-payment, or in excess.

Collections scorecard: A statistically derived behavioural scorecard for predicting future risk for accounts in the early stages of collections.

Consolidation: A loan offered as a means of amalgamating a number of other, smaller loans (usually from multiple lenders), particularly where the customer may be in arrears. The loan principal is generally paid out to the other lenders.

Correlation: The overlap in the predictive content of two or more data items. For example, the ownership of a home telephone and the ownership of a telephone directory are two characteristics that have nearly 100% correlation. Neither data item contributes any additional information about the applicant that is not already known from just one of them. Also known as *interaction*.

CPR: Civil Procedures Rules. The definitive book on court procedures.

Credit bureau: A commercial organization that collects and supplies credit-related information about individuals and companies. Also known as Credit Reference Agency.

Credit bureau score: The total number of points gained when characteristics only available from a credit reference are scored. This can be generated in-house as part of the credit scoring process or it can be a generic score that has been generated by a bureau based on all the information it holds on a customer.

Credit insurance: A specialist form of insurance which covers losses from bad debts.

Credit reference agency: See *credit bureau*.

Credit risk management: Strategic function responsible for optimizing credit losses versus business development. Sometimes known as *credit strategy* or *risk management*.

Credit reference information: The information resulting from an enquiry on a credit bureau's files. In the UK this includes judgments, voters roll, previous search and shared financial/non-financial account information.

Credit score: The sum of the points allocated by the scorecard to the attributes given on an application form plus the answers retrieved from a credit bureau search.

Credit scoring: The traditional term for a statistically derived model for predicting credit risk. It comprises a scorecard and a set of associated statistics for interpreting score in terms of risk. Or, the process of using a scorecard for assessing credit risk.

Credit strategy: Alternative name for *credit risk management*.

Customer scoring: Developing and applying scorecards at the customer level instead of at an individual product/account level. It takes into account all the products held by the

customer, and is used to set an overall credit limit that can be apportioned between different products.

Cut-off score: The score that represents the boundary between accepted and rejected applications, i.e. the lowest acceptable score. This figure is determined by the credit grantor and is adjustable.

Cut-off strategy: A plan that determines the cut-off score. This is usually decided on the basis of volume of accepted accounts required, or acceptable bad rate, or a combination of these. It varies for different products, different scorecards and over time.

CVM - Cardholder Verification Method: The means by which the presenter of the card may be identified as genuine, for example a signature or PIN.

Cycle time or point: A four-weekly or monthly date at which accounts are updated with financial transactions - payments, fees, interest, purchases, cash advances. For credit cards, statements are produced at this point.

D

Data: The raw ingredients (usually facts or figures) that, when processed, produce information or scorecards or management information reports.

Data capture: The process of collecting data from application forms or other paper-based sources, and transferring it to computer media. This may involve keying or scanning.

Declared limit: The credit limit that is notified, i.e. declared, to the customer.

Declines: Those applicants who fail the credit review process. Also known as *rejects*.

Decree: The Scottish equivalent of the English County Court Judgment.

Default data: Accounts that are three months or more in arrears.

Default notice: A notice that must be sent to customers in arrears before litigation or other recoveries actions can be taken to recover the debt. Once the notice has been served the lender has the right to demand repayment of the full balance outstanding rather than only the arrears outstanding.

Defendant: The party responding to a court action, usually the debtor.

Delinquent data: Accounts that are so far in arrears that the relationship between lender and debtor has broken down.

Demographic data: Static data about an individual's personal circumstances.

Descending cumulative statistics:: A table derived from a scorecard development, which shows, for any score or scoreband, the cumulative percentage of applicants expected to achieve that score or higher.

Development sample: A set of applications/accounts used to develop a scorecard.

Discrimination: The ability of a scorecard to differentiate between two polarized outcomes (or two potential outcomes) - usually goods and bads.

Distribution: The pattern of observed values in a dataset. For example, score distribution is the number of occurrences of each score in a sample.

Divergence: The extent to which a scorecard can discriminate between potentially good and bad accounts based on average scores of goods and bads, taking into account the variance around the average scores.

Dormants: Credit or charge card accounts that are rarely or never used by the cardholder.

Dynamic delinquency report: A regular report that monitors delinquency levels by score for a set of accounts which have been open for approximately the same length of time (i.e. they have the same exposure period). The reports are typically produced monthly (sometimes quarterly). It provides the source data for the *dynamic performance cohort matrix*.

Dynamic performance cohort matrix: A report that is regularly updated to monitor the growth in the delinquency levels for a set of accounts which have been open for approximately the same length of time (i.e. they have the same exposure period). The reports are typically updated monthly (sometimes quarterly).

E

Electoral roll: See voters roll.

Encryption: A computerized fraud prevention technique in which data transmitted over a network is scrambled before transmission and unscrambled on receipt.

E-purse: Electronic purse is a prepaid card that contains an electronic value which can be exchanged for goods and services.

Excess: Credit card accounts where the current balance exceeds the declared limit. Also called *over-limit*.

Exclusions: Applications/accounts that are not included in a development sample because either the applicant or the account behaviour patterns are atypical, or because there is no intention to score such applications in the future. Examples include staff, VIP, deceased, stolen, or fraudulent applications/accounts.

Extended credit: When the balance on a credit card is only partly repaid each month, the cardholder has taken extended credit.

F

FIB: Fraud Intelligence Bureau. A rapid response unit based at APACS that shares information between banks and the police for combating fraud.

Final score: A credit score that includes application data and all other, internal or external, data.

Final score report: A statistical report that relates the final score distribution for a particular set of applications to the accept/reject decision.

Floor limit: A financial ceiling, allocated by the merchant acquirer, given to retailers who accept credit cards; all transactions above this limit must be authorized. It is a credit and fraud control measure.

Fraud: Deception for the purposes of obtaining credit.

Fraud scoring system: Uses a scorecard(s) to identify potentially fraudulent credit card transactions and/or applications.

Full payers: Credit cardholders who pay their balance off in full each month, thereby incurring no interest.

G-H

GAIN: Gone Away Information Network. A non-competitive, industry-wide shared information scheme for identifying and tracing absconders who are in arrears.

Generated characteristic: A new characteristic created from two or more characteristics. For instance, 'loan-to-value' is a mortgage scorecard characteristic generated from the property value and the amount of the loan requested.

Generic scorecard: These are generalized risk models, developed and sold by outside vendors, based on information held by the vendor. The information used in such models is generally bureau-based and includes public records, shared-account information, bureau searches and geo-demographic indicators.

Geo-demographic systems: Classification of personal data based on various demographic criteria, e.g. census, voters roll, financial or neighbourhood data.

Gini coefficient and curve: A statistical measure of the efficiency of a scorecard.

Good/bad definition: Precise commercial definitions of good and bad accounts. This includes definitions for indeterminates and exclusions.

Good/bad odds: The ratio of good to bad accounts.

Goods: Accounts with acceptable repayment behaviour patterns. The credit grantor would wish to transact future business with these account-holders.

Grouping: Attributes of similar strength are amalgamated into larger groups. This reduces the total number of attributes and ensures that the sample count for each one is large enough to be statistically sound.

Hold-out sample: see validation sample.

I-K

IHCF: Industry Hot Card File. Computerised list of lost or stolen cards used by merchants in fraud prevention.

Indeterminates: Those accounts that fall between the definitions of good and bad. They may have a mildly delinquent history or not have sufficient maturity to be clearly classified. Ideally these should be no more than 5% of the

development sample.

Information: The result of processing large quantities of raw data into meaningful outputs.

Insight: A UK proprietary payment history system used for sharing financial account information.

Issuer: An organization that recruits cardholders and issues the plastic card. Usually but not always a financial institution.

Interactions: See *correlations*.

Interval statistics: A table of scoring results that shows, for each score, the percentage of applicants which can be expected to achieve any particular score, together with the bad rate and marginal bad rate.

Judgment: A legally binding decision handed down by a court of law requiring a debtor to pay the creditor and the means by which this is to be achieved. Abbreviated as CCJ.

K-S (Kolmogorov-Smirnov) curve: A statistical measure of the efficiency of a scorecard.

M-N

Markov Chain model: A statistical method that can be used for estimating provision levels based on generalized roll rates.

Model: Representation of the future based on past experience, generally derived through statistical analysis.

Money laundering: The illegal process of passing illicit funds through an account (or several accounts) to disguise the original source of the funds.

Monitoring: The business function of producing regular management reports in order to control the scorecard(s) and the lending functions. Industry-standard reports are population stability, characteristic analysis, override analysis, final score report and dynamic delinquency reports. Also known as *tracking*.

Neural network: Modelling technique based on artificial intelligence or the network of nerve cell connections in the brain.

O

OCR: Optical Character Recognition - software that scanners use to convert images into characters or digital files.

Odds: The probability that a specific event will occur expressed as a ratio of one event to another, e.g. good/bad odds.

Outcome period: In a scorecard development, the time period between the date the sample data is extracted and the date the sample is classified into the *principal sets*.

Over-limit: Credit card accounts where the current balance exceeds the declared limit. Also called *excess*.

Override analysis: A regular statistical report that relates, by score-bands, the number of overrides occurring.

Overrides: A decision that contradicts the scored recommendation, e.g. an accept below the cut-off or a reject above the cut-off.

P

Performance scoring: See *behaviour scoring*.

Points: The values assigned to each attribute in a scorecard.

Policy rule: Any rule that is applied in addition to the scoring process in order to arrive at an accept/reject decision, e.g. decline all applicants aged under 18.

Population: All the applicants who have applied for a particular credit product, irrespective of whether they are ultimately accepted or rejected.

Population stability report: A statistical report that reflects changes in a population by score-band.

Portfolio: A collection of accounts held by a credit grantor for a given product.

Positive data: Accounts that are up to date and in order.

Power dialler: Telecommunications equipment that stores future outbound telephoning requirements, automatically dials telephone numbers and presents connected calls to an operator. Also known as a *predictive dialler*.

Predictive dialler See *power dialler*.

Pre-screening: The process of cleaning a mailing list by removing any entries that do not meet a predefined set of conditions, e.g. the existence of CCJs.

Pre-screening scorecard: A scorecard used to identify accounts that are likely to be most suitable for a mailshot.

Principal sets: The two groups used in a two-outcome statistical modelling process, e.g. good/bad or active/inactive.

Probability: The likelihood of a certain event occurring in a pre-defined time scale.

Promises: Offers made by customers whose accounts are in arrears to repay some or all of the debt by an agreed date and in agreed instalments.

Propensity scorecard: Marketing scorecard that predicts the likelihood (or propensity) of an existing customer taking more credit/another loan, etc.

Provision: An accounting measure for the amount of outstanding balances that a lender expects will not be repaid.

PSOs: Payments Systems Organizations.

R

Rank order: To put any group of like items in either ascending or descending order.

Recoveries: Operations function dedicated to the collection of debts remaining after charge-off.

Red lining: The illegal practice of declining an applicant for credit solely on the basis of his or her address.

Reissued plastic: A credit card that has been routinely produced to replace an expired card. See also *replacement plastic*.

Reject inference: The process of deducing how a rejected applicant would have behaved had he or she been granted the credit. The resultant data is then included in the scorecard modelling process.

Rejects: See *declines*.

Replacement plastic: A credit card that has been issued as a one-off event to cover the loss or theft of an existing card. See also *reissued plastic*.

Response scoring: The process of using a scorecard to predict the likelihood of targets responding to a mailshot. If the likelihood is too low, they are removed from the list before

mailing.

Revolvers: Card account-holders who do not pay off the full balance each month. See also *Transacters*.

Revolving credit: A form of consumer credit typified by credit, debit and charge cards, in which the outstanding debit balance may revolve from one payment period to the next.

Risk-based pricing: A strategy in which the interest rate or other terms are set in line with the perceived risk.

Risk management: See *credit risk management*.

Roll rates: The percentage of accounts at any level of arrears that progresses, or rolls on, to the next (worse) level of arrears.

S

Sample: Statistically representative sub-set of the total population.

Score: A one-dimensional summary of a particular aspect of customer behaviour, based on the information known about that customer at a specific point in time.

Scorecard: A set of questions, called characteristics, with a set of answers, called attributes. Each attribute has a different score value. For any given customer, the attribute scores are summed to give a total score that is interpreted using the scorecard statistics.

Search: Enquiry made at a credit bureau.

Shadow limit: An undeclared credit limit, which is usually greater than the declared limit, to which the lender will extend credit on a particular product.

Short settlement: An agreed amount, which is less than the full amount due, that the debtor will pay, and the creditor will accept, in full repayment of the debt.

Skimming: A form of fraud where a card's magnetic stripe details are electronically copied and use to create a counterfeit card.

Sub-population: Any sub-group within the main population that is sufficiently different from the rest of the population to justify being identified separately.

Strategy manager systems: Proprietary systems for implementing

account management strategy design and testing for application or behavioural scoring.

Swap set: Those applications that would have been accepted under the previous decision process, but would be rejected by the implementation of a new scorecard, and vice-versa.

T

Target limit: The maximum amount that a lender is prepared to extend to a customer across all his or her product holdings. There is no tolerance in this limit.

Time-line model: A means of illustrating where different activities occur in relation to each other over time.

Through-the-door population: All the applicants for any particular credit or financial product irrespective of the final accept/reject decision. Sometimes abbreviated to TTD population.

Trace: Operational function dedicated to finding debtors who have absconded without leaving a forwarding address or contact point.

Tracking: See *monitoring*.

Transactors: Card account-holders who pay off the full balance each month. See also *Revolvers*.

Tranche: A group of accounts opened in the same period. Alternatively known as a *cohort*.

Transition matrix: Gives the likelihood of an account in any one state at one point in time moving into any other state at a second point in time.

TTD population: Through-the-door population.

U-W

Underwriting: The process of assessing the risk of any request for credit and reaching an accept or decline decision based on that assessment.

Validation: The process of testing the final scorecard before delivery. The supplier undertakes this before delivery, and the user should repeat the process before the scorecard is implemented.

Validation sample: A small percentage of a scorecard

development sample (typically 20%) which is excluded from the scorecard modelling process so that it can be used to test the final scorecard.

Voters roll (VR): A government list of all the adults who have registered their eligibility to vote in national or regional elections. Also known as *electoral roll*.

VR see *Voters roll*.

Won't pays: Debtors who have defaulted on payments and deliberately choose not to pay for whatever reason. They usually have the ability to pay but not the intent.

Write-off: Any debt that is considered totally unrecoverable. Could be caused by fraud or bad debt.