identeco RFA Credit Scoring

identeco working with RFA have implemented a proprietary, contemporary scorecard, blended with unique financial rules based on decades of UK macroeconomic insolvency experience, together with a highly sophisticated credit limit calculator. RFA are one of the UK's leading suppliers of credit scoring and decisioning systems that are built with integrity, using internationally recognised methods for the analysis of financial statements and business attributes, by means of scientifically proven predictive models, delivering realistic credit limits for businesses that meet the minimum criteria of fair trade credit risk.

Credit scoring is based on the assumption that past experience can be used as a guide in predicting credit worthiness and the process of developing a credit score generally relies on the analysis of historical data and or, the experience of credit risk professionals. There are three basic types of credit scoring models, all of which can be statistically validated: Judgmental Scoring Models; Statistical Scoring Models and Blended Scorecards (also called custom scorecards). All three approaches provide the ability to quickly and efficiently obtain fact-based and accurate predictions of the credit risk of an individual case and the identeco-RFA model would best be described as a blended scorecard.

A blended scorecard combines the statistical model with factors used in a judgmental model and this is generally implemented using a statistical scoring model together with a series of rule based overrides, taking account of: financial thresholds; judgments; insolvency events; auditor opinions etc, this best describes the approach adopted by identeco-RFA. A well-balanced scorecard, such as that built by RFA will predict up to 80% of failures from around 20% of the business universe.

There are separate scorecards for incorporated Companies that have filed financial statements and cases that are either incorporated but have not filed financial statements, or are firms, which will never file a financial statement. Firms and incorporated cases that do not have financial statements will be submitted for scoring through a single scorecard and incorporated cases will be submitted for scoring through 8 variants of the incorporated scorecard depending on the fixed asset threshold, shown in the table below. This processing ensures that each case is processed through a business size appropriate scorecard.

Fixed Asset Floor	Fixed Asset Ceiling
0	12,500
15,501	25,000
25,001	50,000
50,001	100,000
100,001	250,000
250,001	1,000,000
1,000,001	4,000,000
4,000,001 plus	N/A

RFA Corporate Scorecard Attributes (Data elements)

There are up to 15 core attributes available for selection in any of the 8 corporate scorecards and each scorecard uses the 7 - 11 attributes that are least correlated and most highly predictive.

Age since Incorporation - this attribute uses the number of months since incorporation; it is rare for the age of the business to be highly significant but it is statistically significant and a business that has been trading for 12 years, for instance, is far less likely to fail than a business with a 5 year trading record.

Ltd/PLC - Public limited Companies are somewhat less likely to fail than ordinary limited companies because of the increased capital requirements and statutory governance requirements.

Age of latest filed accounts - this attribute uses the number of months since the date of the financial statement and old financial statements are very highly correlated with business failure and freshness is highly correlated with successful outcomes. Well run companies tend to take statutory compliance very seriously and don't file their accounts late; they also tend to get the accounts in front of the board of directors quickly and deal with any issues revealed by the accounts. Lateness is often associated with poor record keeping.

Cash on the Balance Sheet - sometimes as a standalone item, but often used as change in cash between the last two financial statements; this attribute can be a secondary indicator of liquidity. Businesses generally rely on converting short term assets, such as stock and work in progress to meet current liabilities as they fall due.

P&L Account Reserve - used as a standalone attribute containing the latest total from the Balance Sheet as an indication of accumulated trading profits, or more often as change in P&L Account Reserves as a proxy for profitability, which is only a filing requirement for companies classified as Large. Failure is more likely as a result of liquidity issues as opposed to profitability, but the ability to accumulate profits is likely to be stronger than a lack of ability to generate profits.

Gross Profit if present (else change in P&L Account Reserve) - used as a standalone attribute containing either the Gross profit from the P&L account, or the change in P&L Account reserve as a proxy for likely profit and can be used as an absolute figure or as percentage change. Although failure to deliver a profit, or an adequate return for the size of business may not be particularly predictive in isolation, it can be indicative of a change in trend.

Shareholders' Funds - used in isolation as an absolute figure but more often as a change on prior year; this figure is extracted from the Balance Sheet and provides a valuable insight in to the solvency of the business.
Liquidity Ratio - used as an absolute ratio, this figure is taken from the Ratio section calculated from the balance sheet by deducting stocks and work in progress from the current assets and dividing by the current liabilities. Businesses are more likely to fail because they run out of cash, rather than of a failure to generate profits and the liquidity ratio is one of the sternest test of a company's ability to convert current assets into cash. A lower liquidity ratio is an indication of potential cash flow/liquidity problems.

Current Ratio - used an absolute ratio, or as a percentage change on prior year, this figure is taken from the Ratio section, calculated from the balance sheet by dividing the current assets by the current liabilities and is generally regarded as the benchmark liquidity ratio. Retail businesses will generally have a lower current ratio because they purchase stock on credit and sell for cash but a current ratio of less than 1 is generally regarded as having an elevated risk of incurring cash flow problems.

Shareholders' Funds Total Asset Ratio - used as an absolute ration, this figure is taken from the Ratio section, calculated from the balance sheet by dividing the shareholders' funds by the total assets. The higher the number the better because a higher number indicates a higher proportion of shareholder investment and a lower proportion of loan capital or alternative sources of finance, which might be interest bearing.

Sales - used in some of the scorecards for larger companies, this figure is taken from the profit and loss account and simply gives an indication of growth or decline.

County Court Judgments - these feature in all of the scorecards to a certain extent, with the value, volume and age adjusted to take account of the size of the business, large recent judgments, or multiple judgments tend to be much more predictive than older judgments.

General charges - a general charge is over all of the current and future assets of a business and entitles the charge holder to appoint a Receiver and Manager over the entire business in the event of a breach in the loan agreement, thereby resulting in a higher business failure rate. They are distinct from specific fixed/legal charges, where the charge holder can only appoint a fixed charge receiver over the specific asset.

Audit conclusion - auditors are notoriously oblique in their audit qualifications and what on the face of it appears to be a clean audit is far from a guarantee of accounting probity but some auditor comments and emphasis on specific matters can be predictive of insolvency.

Non-Corporate (unlimited) and No Accounts filed Scorecard

There are 6 core attributes in the Non-Ltd and Registered Company No accounts scorecard

- Email address- the absence or presence of an email address has a small predictive impact
- URL-the absence or presence of a URL
- Number of Employees- is predictive and businesses with 7 or more employees are less likely to fail
- Partnership, Proprietorship or Directors- sole proprietorships and single director companies are more likely to fail than partnerships and multiple director companies
- Age of Business- this attribute uses the number of months since inception
- Judgments - value, volume and velocity of county court judgments are by far the most predictive attributes in the Non-Ltd, No accounts scorecard

Credit Limit Calculator

The RFA processing uses two credit limit calculators, with one Calculator reserved for corporate cases with financial statements filed and a second for Non-Corporate & No Financial Statement cases.

Corporate Credit Limit Calculator - for a corporate case to qualify for an RFA credit limit, the case must not have a status of Non-Trading and the credit score must hit the pass mark, which is table driven and can be changed; the pass mark is set to 20, meaning the case must be greater than or equal to 20, to qualify for a credit limit. For qualifying cases, the Credit Limit Calculator takes into account the overall credit worthiness of the business as set by the credit score; the industry sector; the value of trade creditors in current liabilities and the solvency of the business. The score thresholds that drive the credit limit can be altered to meet business requirements.

Non-Corporate No Financial Statement Credit Limit Calculator - for an unlimited, or no accounts case to qualify for a RFA credit limit the credit score must hit the pass mark. This alternative Credit Limit Calculator takes into account the overall credit worthiness of the business as set by the credit score, plus an additional score threshold for higher credit amounts, together with other risk factors and indicators of size, such as the: age of the business; the number of directors/partners and the number of employees.

Scorecard maintenance

Statistical models tend to deteriorate over time due to changing trends and the macroeconomic environment, so it is important that the overall performance of the scorecard is reviewed on a regular basis. And in particular, a review of the unfavorable out of business failures to measure the percentage of case going out of business unfavorably with a good/bad (pass or fail) score classification and a review of the percentage of the universe with good/bad (pass or fail) scores. The RFA scorecard has been designed and built for ease of maintenance; all of the scorecards are table driven and sub optimal results are relatively easy to deal with by re-sampling and making the appropriate adjustments to the specific scorecard(s).

Supplemental Information

Produced for the help desk to support customer looking for an explanation of the rating on a scale of 1 to 9

There are basically 7 different RFA Heath Rating classifications: the top three classifications of Gold, Silver and Bronze have all achieved a pass score on the scorecard and range from Very Low Risk to Fair Trade Risk; 1 Red Flag effectively means a business has not achieved the pass mark on the scorecard, which places it in the bottom 20% of credit scores, meaning the credit risk is much higher and we are not recommending credit on open credit terms, without either suitable assurance, or guarantees; the Amber classification means a case has achieved a pass mark on the scorecard but there are other reasons why we would be recommending caution, which could be due to adverse trends or contingent liabilities; cases classified as 2 or 3 Red Flags are very high risk businesses.

If you were to look at them on a scale of 1 to 9, with 1 being very strong and 9 being very weak, it would look something like this:

Red Flag Designation	**Nominal Score**	**Meaning**	**Credit Terms**
Gold	1 & 2	Very Low Risk	Open Credit Recommended
Silver	2 & 3	Low Risk	Open Credit Recommended
Bronze	4, 5 & 6	Fair Trade Risk	Open Credit Recommended
Amber	7	Moderate Risk	Open Credit with Caution
1 Red Flag	7.5	Elevated Risk	Suitable Assurances or perhaps Guarantees Advised
2 Red Flags	8.5	High Risk	Guarantees Advised
3 Red Flags	9	Very High Risk	Cash with Order