GRAYDONcreditsafe

GUIDE

The renewed Dutch Credit Scorecard

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1: What is a Credit Scorecard?

A (supplier) credit risk, also called trade credit risk, is the risk that a company cannot meet its short-term payment obligations. A credit score provides an assessment of this short-term credit risk. In other words, a credit score gives an indication of the likelihood of default. The GraydonCreditsafe Credit Scorecard continuously calculates credit scores for all companies and organizations in the Netherlands based on the most up-to-date data, and in a reliable and consistent manner.

The GraydonCreditsafe Credit Scorecard is a statistical (linear regression) model developed by our own Group Analytics Team in Stockholm. This team creates all credit score models for the entire Creditsafe Group and has a great deal of experience in developing, analysing, and implementing our Credit Scores worldwide.

A unique Credit Scorecard is created for each Creditsafe home Country. Both the methodology of the statistical scorecard and the outcomes of the scorecard are always the same and therefore Creditsafe scores are very consistent and very (globally) comparable.

In addition, for each country, each Credit Scorecard is fully developed and tailored to the locally available business data and characteristics of the business population. In fact, this varies greatly from country to country. In this way, each scorecard is fully optimised to the country of focus. This ensures that the predictive power of the GraydonCreditsafe Credit Scores is maximized.

When building and implementing our Scorecards, we continuously monitor that we use as much optimized data as possible, while ensuring that we provide all companies and institutions in the Netherlands with an up-to-date Credit Score. We aim for 100% coverage of the Dutch business population so that they are available 24/7, including for making online real time automated credit decisions.

This means that there must be sufficient coverage of company data over longer periods of time (for analysis) and that these relevant data points used in the model sufficiently distinguish between good and bad paying companies.

Simply put, the data points used in the scorecard have sufficient "predictive value" to estimate the probability of default.
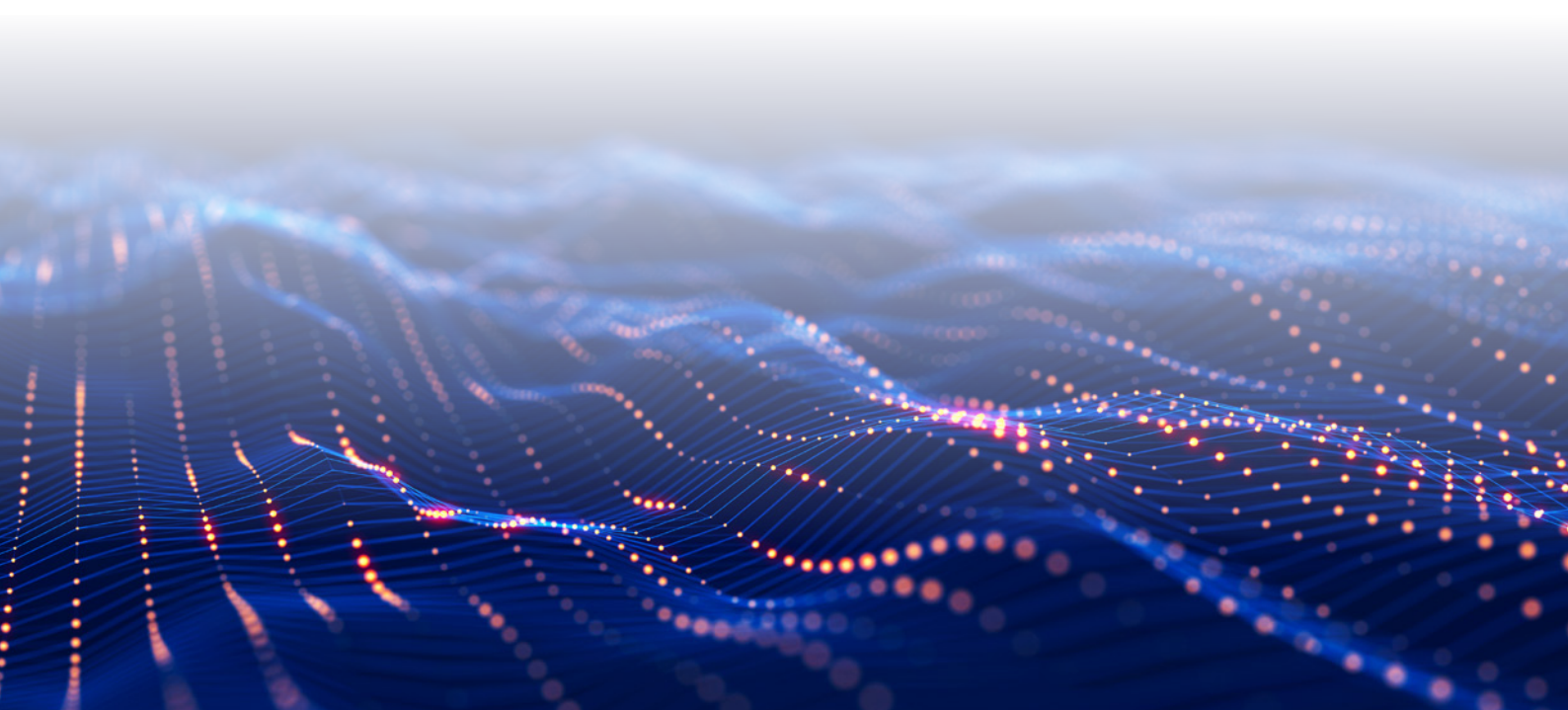
2: The Probability of Default behind every score

A crucial part of a statistical Credit Scorecard is the so-called default definition. There should be no misunderstanding about this because, after all, it is the subject that the regression model is supposed to predict: the Probability of Default (PD).

The probability of default predicts a company's good or bad performance for the next 12 months. To know whether a prediction for default is good or bad, we must be able to identify "bad". The definition of bad is therefore defined as follows:

Defaults	Required to file annual accounts	Not required to file annual accounts
Bad	• Bankruptcy	• Bankruptcy • 3 payments (paid or outstanding) of at least 91 days after the due date
Good	• None of the above definitions	• None of the above definitions

The Probability of Default (PD) is expressed as a percentage and this percentage is converted to the unique GraydonCreditsafe Credit Score between 1 and 100, representing the highest and lowest risk respectively. In this way, the PD can be more easily used when assessing companies and accepting or rejecting based on our Credit Score.

The development of the new scorecard and the new PD table means that the former and new Dutch Credit Scores cannot be compared one-to-one. The underlying statistics have changed, the scoring model has changed and, as a result, the meaning of the scores from 1 to 100 has changed.

This does not mean that all company scores will decrease, as some companies will receive a higher score than before. However, when a decrease in score is observed, the changes in PDs should be looked at to find determine the Probability of Default.

The table below shows how the PD ratios are translated into the GraydonCreditsafe Credit Score. .

Score		Min PD		MaxPD	Band	Score		Min PD		MaxPD	Band
100	>	0,0001%	<=	0,0202%	A	50	>	0,7162%	<=	0,7673%	C
99	>	0,0202%	<=	0,0217%	A	49	>	0,7673%	<=	0,8219%	C
98	>	0,0217%	<=	0,0234%	A	48	>	0,8219%	<=	0,8803%	C
97	>	0,0234%	<=	0,0251%	A	47	>	0,8803%	<=	0,9429%	C
96	>	0,0251%	<=	0,0270%	A	46	>	0,9429%	<=	1,0099%	C
95	>	0,0270%	<=	0,0291%	A	45	>	1,0099%	<=	1,0816%	C
94	>	0,0291%	<=	0,0313%	A	44	>	1,0816%	<=	1,1584%	C
93	>	0,0313%	<=	0,0337%	A	43	>	1,1584%	<=	1,2405%	C
92	>	0,0337%	<=	0,0362%	A	42	>	1,2405%	<=	1,3283%	C
91	>	0,0362%	<=	0,0390%	A	41	>	1,3283%	<=	1,4223%	C
90	>	0,0390%	<=	0,0419%	A	40	>	1,4223%	<=	1,5228%	C
89	>	0,0419%	<=	0,0451%	A	39	>	1,5228%	<=	1,6304%	C
88	>	0,0451%	<=	0,0485%	A	38	>	1,6304%	<=	1,7453%	C
87	>	0,0485%	<=	0,0521%	A	37	>	1,7453%	<=	1,8683%	C
86	>	0,0521%	<=	0,0561%	A	36	>	1,8683%	<=	1,9997%	C
85	>	0,0561%	<=	0,0603%	A	35	>	1,9997%	<=	2,1401%	C
84	>	0,0603%	<=	0,0649%	A	34	>	2,1401%	<=	2,2902%	C
83	>	0,0649%	<=	0,0698%	A	33	>	2,2902%	<=	2,4506%	C
82	>	0,0698%	<=	0,0751%	A	32	>	2,4506%	<=	2,6218%	C
81	>	0,0751%	<=	0,0808%	A	31	>	2,6218%	<=	2,8047%	C
80	>	0,0808%	<=	0,0869%	A	30	>	2,8047%	<=	3,0000%	C
79	>	0,0869%	<=	0,0934%	A	29	>	3,0000%	<=	3,2084%	D
78	>	0,0934%	<=	0,1005%	A	28	>	3,2084%	<=	3,4308%	D
77	>	0,1005%	<=	0,1081%	A	27	>	3,4308%	<=	3,6680%	D
76	>	0,1081%	<=	0,1163%	A	26	>	3,6680%	<=	3,9209%	D
75	>	0,1163%	<=	0,1251%	A	25	>	3,9209%	<=	4,1906%	D
74	>	0,1251%	<=	0,1345%	A	24	>	4,1906%	<=	4,4779%	D
73	>	0,1345%	<=	0,1447%	A	23	>	4,4779%	<=	4,7839%	D
72	>	0,1447%	<=	0,1556%	A	22	>	4,7839%	<=	5,1097%	D
71	>	0,1556%	<=	0,1674%	A	21	>	5,1097%	<=	5,4564%	D
70	>	0,1674%	<=	0,1800%	B	20	>	5,4564%	<=	5,8252%	D
69	>	0,1800%	<=	0,1936%	B	19	>	5,8252%	<=	6,2173%	D
68	>	0,1936%	<=	0,2083%	B	18	>	6,2173%	<=	6,6340%	D
67	>	0,2083%	<=	0,2240%	B	17	>	6,6340%	<=	7,0764%	D
66	>	0,2240%	<=	0,2409%	B	16	>	7,0764%	<=	7,5460%	D
65	>	0,2409%	<=	0,2591%	B	15	>	7,5460%	<=	8,0440%	D
64	>	0,2591%	<=	0,2786%	B	14	>	8,0440%	<=	8,5719%	D
63	>	0,2786%	<=	0,2997%	B	13	>	8,5719%	<=	9,1310%	D
62	>	0,2997%	<=	0,3223%	B	12	>	9,1310%	<=	9,7226%	D
61	>	0,3223%	<=	0,3466%	B	11	>	9,7226%	<=	10,3482%	D
60	>	0,3466%	<=	0,3727%	B	10	>	10,3482%	<=	11,0092%	D
59	>	0,3727%	<=	0,4008%	B	9	>	11,0092%	<=	11,7068%	D
58	>	0,4008%	<=	0,4310%	B	8	>	11,7068%	<=	12,4425%	D
57	>	0,4310%	<=	0,4635%	B	7	>	12,4425%	<=	13,2175%	D
56	>	0,4635%	<=	0,4984%	B	6	>	13,2175%	<=	14,0331%	D
55	>	0,4984%	<=	0,5359%	B	5	>	14,0331%	<=	14,8903%	D
54	>	0,5359%	<=	0,5763%	B	4	>	14,8903%	<=	15,7903%	D
53	>	0,5763%	<=	0,6196%	B	3	>	15,7903%	<=	16,7339%	D
52	>	0,6196%	<=	0,6662%	B	2	>	16,7339%	<=	17,7221%	D
51	>	0,6662%	<=	0,7162%	B	1	>	17,7221%	<=	99,9999%	D

3: The GraydonCreditsafe Score Bands

In addition to the Probability of Default and translation to the GraydonCreditsafe Credit Score of 1-100, we also see the Score Bands reflected in the GraydonCreditsafe Credit Score table. These are shown in the column: 'Score Band' from A to D.

The table below shows the different Score Bands, with the corresponding PD range, the Credit Score from 1-100, the bad ratio, the expected bad ratio, and the percentage of the population.

The bad ratio indicates the percentage of companies within the sample population that defaulted and would have received the respective score or Score Band. While the expected bad ratio is the average probability of default predicted by the Scorecard.

It can be seen from the table that the expected defaults (expected bads) as an outcome of the Scorecard is very close to the actual number of defaults (bad ratio) as determined retrospectively.

The table below was created based on the limited population and over a period of 36 months.

Score Band	Min PD	Max PD	Min score	Max score	Bad Ratio	Expected bads	% of population
A	0,01%	0,17%	71	100	0,05%	0,06%	68%
B	0,17%	0,72%	51	70	0,37%	0,34%	24%
C	0,72%	3,00%	30	50	1,37%	1,31%	7%
D	3,00%	99,99%	1	29	4,18%	4,95%	1%

A so-called cut-off limit determines the boundary between 'creditworthy or not creditworthy'. This is set in the new Scorecard at a Credit Score 30, which was 37 in the previous Scorecard. The adjustment was made partly to bring the scores in line with international standards.

Now all high-risk, internationally consistent companies are identified as risk band D, with credit scores of 29 or lower.

4: Segmentation of the Dutch business population

The purpose of the GraydonCreditsafe Credit Score is to accurately predict business behaviour (in terms of their good/bad performance over the next 12 months) using a set of characteristics and a default definition, to indicate how risky it is to extend trade credit to a company.

To increase the distinctiveness and thus the predictive power of our Scorecard, we apply segmentation. The purpose of segmentation is to create smaller sub-populations that, when modelled separately and combined, rank risk better than a single model for the total population of nearly 3.4 million Dutch companies and institutions.

The main basis for segmentation is the size of the company in terms of balance sheet total. In addition, three score models have been developed for companies for which annual figures are not available. This is because not every company in the Netherlands is required to file. Please see the segments determined in the table on the right.

The result of this segmented approach is a Probability of Default per company translated into a consistent comparable Credit Score (1-100) and Risk Class (A-D).

Companies with financials (annual accounts)

1. Small
2. Medium
3. Large

Companies without financials

4. New companies who have not filed their financials yet
5. Other companies that don't have financials available with payment data
6. Other companies that don't have financials available without payment data

5: Why update the Credit Scorecard?

Creditsafe's Credit Scorecards calculate the statistical probability that a company will run into financial trouble and be unable to pay their debts. The model is validated and monitored daily so that we can continue to guarantee quality - including high predictive power. Every so often, it is necessary to update and adjust the Scorecards, so that they continue to perform optimally. Nothing new really.

With the acquisition of Graydon by Creditsafe Group, the amount of available business information, business connections and international group structures and depth of the Dutch database has increased.

Furthermore, the large amounts of payment data from both parties have been merged and we now have better insight into international company connections to and from Dutch companies. With the further expansion of the database, there are now more data points that are included in the Credit Scorecards.

With the improved Credit Scorecard, we benefit from a current upscaling of stability, accuracy, and predictive power in assessing credit risk. This is important because the context in which decisions must be made is constantly changing. This allows actual day-to-day decisions to be made with confidence while at the same time allowing for foresight and planning.

6: The power of the new Credit Scorecard

The power of using data from both Creditsafe and Graydon has been a key factor in the development of a new Scorecard. This has been conducted by our internal Group Analytics team.

GraydonCreditsafe is working to constantly strengthen its Credit Scores, using the latest knowledge in statistical scoring methods, and making the best use of its ever-expanding database.

This ensures that GraydonCreditsafe uses the most up-to-date and relevant information available in the market and continuously improves the way companies are scored. This enables better and more predictive ratings to be made for a growing number of companies, even in cases where less information is available.

6.1: Distribution of population for companies with financials

Graph 6.1 shows in percentages the distribution of the total population on Credit Scores (divided into 10 groups from 1 to 100).

The graph also shows the bad ratio and the expected bad ratio. As can be seen from the graph, the two lines are almost identical indicating strong and good outcomes of the Scorecard. The high degree of agreement between the measured observed bad ratio and the expected bad ratio proves that the Scorecard provides an accurate picture of the actual credit situation.

Furthermore, it can be seen from the graph that there is reverse causality between the increase in Credit Scores and the decrease in bad ratios. Again, these results show that our Scorecards are reliable and accurate.


6.2: Predictive power and the Gini Coefficient

The Gini Coefficient is a well-known and very widely used quality indicator of how well a statistical prediction model performs. For the statistical (linear regression) model we use, the Gini Coefficient calculates how well our model distinguishes the "good companies" from the "bad companies". A Gini Coefficient of 0.5 (or 50) and above indicates that the model predicts logically.

The Gini Coefficient of the GraydonCreditsafe Scorecard shows excellent discrimination of the Dutch business population across all segments. The Gini Coefficient varies by segment and goes up to a value as high as 76.

To further substantiate the robustness of the Scorecard, GraydonCreditsafe validated the Scorecard using an out-of-time validation technique. The results show that all characteristics are within tolerance and an acceptable level of accuracy.

The Creditsafe Analytics Team continuously monitors and validates all Scorecards to keep them robust and distinctive.
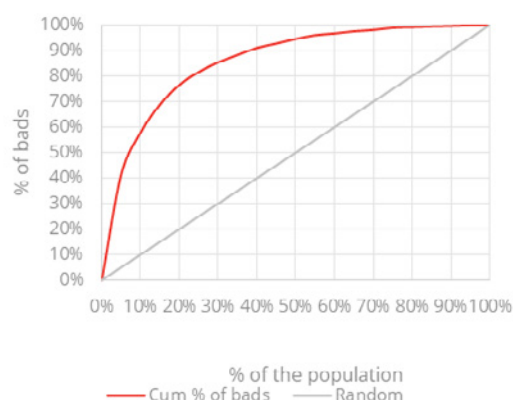
7: Guidance and insights

We are ready to provide all the support you need when using our Credit Score solutions. This could include:

- Automation of (credit) underwriting policies.

- Development and implementation of decision models incorporating Credit Scores.

- Support with implementation of new credit scores in your business operations, e.g. if you switch to a new credit information provider

8: FAQs and support

We are here to support you with any questions you may have during this time and have set up several online and offline resources to help you along.

Web Page Credit Scorecard

Details about our Credit Scorecard and tools can be found on our dedicated web page. You'll also find a FAQ section there with the most frequently asked questions and answers, and you'll be able to see the latest updates and announcements.

Where to find us

We are available on weekdays between 8:30 AM and 5 PM.

Email

Email us at customerservice@graydoncreditsafe.nl and we'll be happy to help.

Phone

You can reach us at +31 (0)70 38 44 600.

Help Hub

In our online Help Hub you can find immediate answers to frequently asked questions about our Information Portal or our products. It is also possible to submit a ticket via our Help Hub.

Make an appointment

Make an appointment with one of our specialists.