CRiskCo
Credit community

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CRiskCo Analytics Dictionary

The CRiskCo Dictionary is presented as a guide to help explain the analytics that are found within the CRiskCo Platform. The guide provides an overview of the terms, their importance with why they should be given consideration and the expected or desired output of the measurement.

Description	Why is it important	Desired Range or Level
Active Customer		
The number of customers who have made a purchase in the last 12 months. Measured by invoiced clients. Cash sales or online purchases are excluded.	Shows the diversity of the customer base and the trend over time. A more diverse customer base suggests a business is less reliant on a particular customer.	No typical range, will vary according to business size, industry and other factors.
% Top 5 Customers		
The portion of total sales made in the period by the 5 largest customers by dollar value. Top 5 customers refers to invoiced clients. Cash or online sales are excluded.	Helps explain the business's exposure to its largest clients. The higher the number the more reliance that is placed on a small number of customers. Important to understand the trend, is customer concentration increasing or decreasing over time?	Range can vary by industry and location. For example, a grocery wholesaler will likely have a small number of customers (e.g. large supermarkets) compared to an online retailer with many customers who make small purchases. Compare to other similar business's in the same industry.
% Top 5 vendors		
The portion of total purchases made in the period from the 5 largest suppliers by dollar value. Top 5 vendors is calculated using suppliers who provide an invoice.	Helps explain the business's exposure to its largest suppliers. The higher the number the more reliance that is placed on a small number of suppliers. Important to understand the trend, is supplier concentration increasing or decreasing over time?	Range can vary by industry and location. For example, a cafe will likely have a smaller number of suppliers compared to an online retailer which may source its product range from many suppliers. Compare to other similar business's in the same industry.

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Description	Why is it important	Desired Range or Level
Customer Risk (HHI)		
The Herfindahl Hirschman Index is a measure of customer concentration. Measures concentration of invoiced customers.	Increases in the Herfindahl index indicate an increase in customer concentration. The higher the concentration the more reliance that is placed on a smaller number of customers. Conversely, a decrease represents less reliance placed on the largest customers.	The result of the score is interpreted as: Below 0.01: Very low concentration Below 0.15: Low concentration Below 0.25: moderate concentration Above 0.25: High concentration This translates to a huge number of very small customer up to a single customer (score of 1.00).
Vendor Risk (HHI)		
The Herfindahl Hirschman Index is a measure of supplier concentration. Measures concentration of invoiced suppliers.	Increases in the Herfindahl index indicate an increase in supplier concentration. The higher the concentration the more reliance that is placed on a smaller number of suppliers. Conversely, a decrease represents less reliance placed on the largest customers.	The result of the score is interpreted as: Below 0.01: Very low concentration Below 0.15: Low concentration Below 0.25: moderate concentration Above 0.25: High concentration This translates to a huge number of very small customer up to a single customer (score of 1.00).
Z Score		
The Z Altman Score (Z Score) is a credit strength metric that calculates a business's likelihood of default. The metric is based on 5 financial ratios that are combined to analyze a business's profitability, leverage, liquidity, solvency and activity. Originally designed for public manufacturing companies. As more granular data became available on SMEs the Z Score was expanded to include private and non-manufacturing businesses. For further details read more here	The Z Score as an effective indicator of predicting credit risk has been empirically proven in numerous financial studies and published in financial journals. The score is derived using key financial inputs including: working capital, equity, earnings, assets, sales and liabilities. By combining the 5 ratios the score considers a wide range of factors and combines information from the Profit and Loss Statement with the Balance Sheet.	The result of the score is interpreted as: Safe: Above 2.90. The business is considered to be safe from default Grey: Above 1.80 but below 2.90. The business should be investigated and is considered to be in a cautious zone. Distress: Below 1.80. The business is at an elevated risk of a default and represents a business in distress.
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Debt Service Ratio

The debt service ratio is used to measure a business's ability to meet current debt obligations through the business's earnings.

It is similar to an interest cover ratio. However, in addition to measuring the ability to pay interest, the payment obligation also includes the debt itself that is due within the next 12 months.

Earnings are calculated as profit before Tax.
Current debt obligations are defined as current liabilities (less accounts payable) plus interest.

The debt service ratio is an important tool in assessing a business's ability to repay their debt obligations. In order to continue to operate a business needs to meet its debt obligations. Under normal circumstances it ideally meets these obligations through the cash generated by business operations. The debt service ratio demonstrates the ability to meet these payments.

While a desirable ratio is greater than 1, the absolute value will vary by industry and should be compared to other similar sized companies.

A debt service ratio of below 1 means that a business cannot pay its current debt obligations through the income of the business. They will likely have to raise funds by other means such as borrowing or selling assets.

A ratio of 1 means that the business can exactly meet the debt obligations but without any headroom. A decline of earnings in this situation would result in them being unable to meet their requirements.

A ratio greater than 1 means the business is able to meet the debt payable through the earnings it generates. The higher the number, the larger buffer that exists.

Coverage Ratio (ICR)

The interest coverage ratio (ICR) is used to measure a business's ability to meet current interest obligations through the business's earnings.

Earnings are calculated as profit before Tax.
Current debt obligations are defined as current liabilities (less accounts payable) plus interest.

Calculation:
EBIT / Interest Expense

Where,
EBIT = Earnings before Interest and Tax

The coverage ratio is an important tool in assessing a business's ability to repay their interest obligations. Under normal circumstances it ideally meets these obligations through the cash generated by business operations. The interest coverage ratio demonstrates the ability to meet these payments.

While a desirable ratio is greater than 1, the absolute value will vary by industry and should be compared to other similar sized companies.

An interest coverage ratio of below 1 means that a business cannot pay its current interest obligations through the income of the business. They will likely have to raise funds by other means such as borrowing or selling assets.

A ratio of 1 means that the business can exactly meet the interest obligations but without any headroom. A decline of earnings in this situation would result in them being unable to meet their requirements.

A ratio greater than 1 means the business is able to meet the payment through the earnings it generates. The higher the number, the larger buffer that exists.

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Description	Why is it important	Desired Range or Level
Pretax Profit Margin		
Measures the company's ability to generate earnings before taxes. In effect, how much of every dollar from a sale is kept as profit before taxes are paid. Calculation: Profit before Tax / Total Sales	Higher margins are desirable and demonstrate management's ability to manage costs. This ratio includes all costs borne by the business including: Cost of Goods Sold, Operating expense and interest. Regardless of absolute value, look for consistency over time which demonstrates the business's ability to maintain the level of profitability, or alternatively an erosion in profitability.	A positive number indicates the business is profitable, while a negative number shows that a business is spending more money than it generates in sales. The range can vary greatly based on a number of factors including industry, company size and location. Therefore, it is important to compare the margin to similar businesses. Generally speaking, look for an increase overtime.
Return on Equity (ROE)		
Measures the company's ability to generate a return on the equity invested in the business. In other words, what profit does the company generate on the net assets in the business. Calculation: Profit before Tax / Total Equity.	A positive number indicates the business is growing its equity, while a negative number reflects a decrease in equity. Regardless of absolute value, look for consistency over time which demonstrates the business's ability to continue to deliver that level of return.	What is considered a "good" ROE will vary based on industry and company size. What is important is to compare to other similar size companies in the industry. Generally speaking, look for an increase overtime.
Current Ratio		
Current Ratio is a measure of the business's liquidity. It shows their ability to pay all short-term obligations, payments due in the next 12 months, through its assets that it expects to convert to cash in the next 12 months. Calculation: Current Assets / Current Liabilities	Provides an understanding of the business's ability to meet the financial obligations over the next 12 months. In order to continue operating financial obligations need to be met. The current ratio shows how much can be met through short term assets.	A ratio of less than 1 indicates the debts due in the next 12 months are greater than the assets expected to be converted to cash in the next year. This raises the question of how will obligations be met in the coming year? While a higher ratio means a business is more capable of meeting those payments.

Description	Why is it important	Desired Range or Level
Quick Ratio		
Similar to the Current Ratio but more conservative as the only the most liquid current assets are included (cash and accounts receivables). Calculation (Total Cash + Accounts Receivables) / Current Liabilities	Helps the reader understand the business's ability to meet the financial obligations over the next 12 months using cash or near cash assets (the accounts receivables).	Similar to the Current Ratio. A ratio of above 1 shows it can meet the financial obligations with very liquid assets.
Leverage – Debt to Equity		
The leverage ratio measures how much of the company' operations are funded by debt or equity. Calculation: Total Liabilities / Total Equity	The Debt to Equity ratio is an important tool used accessing the health of a company. It shows how the assets of the business have been funded. A high debt to equity ratio is an indication of low liquidity. This means the company is reliant on creditors to fund their operations.	What is considered a "good" Debt to Equity ratio will vary based on industry and company size. So it is important is to compare to other similar size companies in the industry. However, the lower the number the lower the risk of default as there is more equity.
Financial Leverage – Debt to Capital Ratio		
Similar to the Debt / Equity ratio, the Debt / Capital Ratio is a measure of the company's financial health. Calculation: Total Liabilities / (Total Liabilities + Total Equity)	Debt to Capital is an important measure to identify how much a company is dependent on debt to finance its day-to-day activities and to estimate the risk level to a company's stakeholders. It also measures the creditworthiness of a firm to meet its liabilities in the form of interest expenses and other payments.	If the Debt to Capital ratio is greater than 1, the company has more debt than equity. This company is a in a high risk. If any more liabilities are acquired without an increase in earning, the company will not have sufficient equity to meet the obligations. As with the leverage ratio, it is important to consider company size and industry.

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DSO		
Days Sales Outstanding. Measure the average number of days between a sale and collection of the payment for that sale. Often calculated on a monthly or yearly basis. Calculation Receivables End of Period / Total Sales for prior 12 months x 365	The lower the DSO, the quicker a company is receiving cash for the sale of its product or services. Whilst specific for each industry, a high DSO can indicate a problem collecting payments and lead to cashflow problems as the cash for the sale takes a long time to be received. As the DSO increases more credit is being extended to the customers as they are receiving the product or service without paying.	The important element of assessing DSO is the trend over time. An increase in DSO means customers are taking longer to pay. This can be due to numerous reasons including i) sales team providing longer terms, ii) their customers having cashflow constraints and delaying payments or iii) change in the customer mix towards credit sales. Seasonality may also play a role, with longer terms potentially provided at certain times of the year.
ADD		
Average Days Delinquent. Measures the average number of days an invoice is past due. Calculation (Receivables End of period / Total Sales for prior 12 months x 365) – (Receivables Due / Total Sales for prior 12 months x 365)	Useful to assess the collection of the business's account receivables in conjunction with the DSO. A rising ADD reflects that invoices are increasingly being paid later than the due date.	As with DSO the importance of ADD is the trend over time. If the ADD is stable over time, it suggests that while invoices are being paid late, they are paid on a consistent basis. Alternatively, a volatile ADD suggest customers are paying when they have cash available and they may be experiencing cashflow issues.
CEI		
Collection Effectiveness Index is a calculation of a company's ability to collect their accounts receivables from their customers. Calculation (Receivables Start of period + Sales for prior 12 months – Receivables	Simply put, CEI compares the amount that was collected in a given time period to the amount of receivables that were available for collection. The higher the CEI the better the business is at collecting money due to	CEI of greater than 80% is considered high, while a CEI below 50% requires further investigation and discussion with the business.

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end of period) / (Receivables Start of period + Sales for prior 12 months – Receivables Due) x 100	them and is managing its customer exposure.	

Description	Why is it important	Desired Range or Level
Working Capital		
Working capital is a measure of a company's liquidity, operational efficiency, and its short-term financial health. Calculation: (Accounts Receivables + Inventory) - Accounts Payable	If a company has substantial positive working capital, then it should have the potential to invest and grow. If a company's current assets do not exceed its current liabilities, then it may have trouble growing or paying back creditors, or even go bankrupt.	The absolute value will vary based on the company sizes and industry. It is important to look at the change over time. In addition, high working capital isn't always a good thing. It might indicate that the business has too much inventory or is not investing its excess cash.