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Glossary of D&B Standardized Predictors & Indicators, Custom Analytics, and Data Assets for Analytic Use

Standardized Predictors, Indicators, & Solutions	Turnkey solutions developed, validated and maintained to enable timely implementation. Customization of solutions is feasible.
Buydex	Ranking of general spend capacity at the site or family level; can be tailored to spend on IT, other industries, and customized based on client's product set.
Composite Risk Score	Estimates the overall risk of a business by combining the Viability Rating, Delinquency Predictor, and Total Loss Predictor into a single, comprehensive score. Scale is 3-9, where 3 is the lowest risk and 9 is the highest risk. Available on approximately 20M US businesses.
Credit Score Archive Data (CSAD) – US Only	A traditional analytic data set of over 135 risk-related attributes archived monthly over the last 10 years. Provides point-in-time insight at the DUNS-level on firmographics, linkage, sales, net worth, Paydex, uccs, trade, legal filings, and risk scores.
Decision HQ	Of the 240M business locations in the Dun & Bradstreet global file, 21M are members of a corporate Family Tree; the top 5,000 Family Trees from D&B World Base® are composed of over 2.5 Million individual sites. This solution leverages linkage hierarchy, influence over branches & subsidiaries, inquires, presence of c-level executives, size and sic to assign an indicator of decision making power at the site.
Delinquency Predictor ™	Predicts the likelihood that a company will pay in a severely delinquent manner (10% or more of their obligations 91+ days past term), seek legal relief from creditors, or cease operations without paying all creditors in full during the next 12 months. Offers superior performance over past credit scores. Multiple client validations suggest at least 23% lift over CCS 8. Key ingredients in the model include business activity signals, detailed commercial payment experiences that capture month-to-month trends, public filing, demographic, and financial information. Offered on 3 different scales: Risk Class 1-5, Percentile Ranking 1-100, and Raw Score 101-660 with delinquency rates ranging from high of 52% to low of 1.1%. Available on approximately 20M US businesses.

Derived Attributes Available for Transactional Use (US Only)	D&B collects, curates, and archives data on commercial entities – large and small - across a wide spectrum of channels. Most of the data D&B collects is in a "raw" (very basic and elemental) form. To increase the efficiency and effectiveness in using this data in predictive models, D&B has applied experience-driven transformations and rollups to concentrate and condense the information contained in the more fundamental raw data elements into *Derived* attributes for use as predictor variables in risk and marketing models. The Advanced Analytics team at D&B evaluates hundreds of such transformations in terms of the predictive value of the resulting variables. Specifically, each potential derived attribute is measured on its relative contribution in predicting common outcomes of interest to our clients. Upon passing through multiple stages of testing and scrutiny by the team (wherein many of the 'candidate' derived attributes are withdrawn) decisions are made on which transformations provide the most value. Thus, the algorithms associated with the final set of attributes are implemented on D&B's production systems and updated monthly. These derived attributes are available on the same schedule as our standard archived data extracts and are based on the values of the raw input variables at the time the extracts are generated. Noteworthy too, is that these derived attributes are subject to the same audits (for error checking) that apply to the raw data elements. The finished product (Derived attributes) are available for transactional Use in Toolkit™, and Dunslink™. Data sources used to create Derived Attributes for Transactional Use include Detailed Trade, Business Activity, D&B Inquiry and Business Spending. Further, D&B has a high level of confidence in the continued production and availability of all the derived attributes for the foreseeable future.
Global Business Ranking ™ (All Markets)	A standard risk indicator that will predicts a business' likelihood of voluntarily or involuntarily going out of business, encountering lead up events such as filing for bankruptcy, insolvency, administration and others, or becoming dormant or inactive. This score combines macro-economic variables and company-specific risk characteristics to enable a globally-consistent, relative measure of risk. The granularity and sophistication of the risk score will vary based on depth of underlying data attributes at the entity level.
Material Change ™ Segmentation – for US markets; non-US markets; and global markets – US and non-US	An innovative solution that will help clients get an earlier picture of business risk or opportunity in ways that traditional assessments cannot provide. Advanced analytics are cutting through all the data that flows through D&B to transform 'digital smoke signals' into early warnings of possible future business behavior. For example, a combination of material change events like an increase in spend, new site openings, and addition of new credit lines may be predictive of a business that is poised for growth and about to increase its buying power. This foresight will help clients anticipate behavior and place them ahead of the competition. Segment ID is available on approximately 180M Global businesses. Scale is A-J indicating which of the following segments a company is in: early sign of decay, decreasing demand, increase in borrowing, increase in scale, increase in demand, leverage for growth, organic growth, reduction in scale, spend growth, stable.
Paydex	Leverages data from D&B Trade Exchange Participant to calculate a dollar weighted average days to pay.
Global Sales & Employee Roll Up	For sales potential estimation and MDM purposes, customers may require complete fill rates on sales & employee values (including branches), the ability to "break off" a family tree and remain consistent, and eliminate duplicate values (double counting) for holding companies. Premium Sales & Employee Roll-Up addresses this need by layering logic on top of standard sales & employee estimation models to adjust the modeled figures. The result is 100% fill rates and roll-up consistency at any level within the family tree.

Small Business Health Index ™ (US Only)	D&B's Small Business Health Index (SBHI) has been created to measure business health at the Metropolitan Statistical Area (MSA) and Industry (SIC) level as it relates to payment patterns, failure rates, and utilization on credit. The index is a combination of pro-cyclical and counter-cyclical elements – reflected in one number and is calculated quarterly. The Index is based on 4 factors: ➢ Average Credit Card Utilization ➢ Percent of Credit Cards with outstanding balance cycle3+ (61DPD+) ➢ Ratio derived from the number of failures in the last 12 months over prior 12 months ➢ Percent of delinquent dollars 91DPD+ out of all outstanding balance
Strategic Marketing Archive Data (SMAD) – US Only	A traditional analytic data set of over 180 marketing-related attributes archived monthly over the last 10 years. Provides point-in-time insight at the DUNS-level on firmographics, import/export, linkage, sales, Paydex, management responsibility codes, pre-screen scores, hot lists and trends.
Targeted Precision Analytics (TPA)	A machine-learning approach to model development uses standardized data, protocols and output designed to significantly reduce production time and deliver high performing results. TPA translates the value of predictive and prescriptive analytics into actionable insight for business owners and access to optimized propensity and response models.
Total Loss Predictor ™ (US Only)	Predicts the probability of a company never paying, based on their similarities with other companies in the D&B database that don't pay. Never paying is defined at the account level whereby the total balance owing since the time of origination rolls to 121+ days past due. A "bad" business is one with 80% or more of its dollars owing associated with these "never pay" account originations. This predictor is designed to identify first time payment default, straight rollers, or fictitious/shell companies. It is not designed to identity never pay performance due to theft, account takeovers, or bust outs. The Total Loss Predictor score uses statistical probabilities to classify companies into two risk classifications: a 2002-2999 Risk Score and a 1-10 Risk Class. These classifications are based on the probability of a business experiencing the above definition of 'never pay' over the next 9-month period.
Viability Rating ™ (US and Canada)	A multi-dimensional rating that delivers a highly insightful and reliable assessment of a company's future viability and consists of both predictive and descriptive components. The predictive components predict the likelihood that a company will go out of business, become inactive, or file for bankruptcy over the next 12 months. The descriptive components provide an indication of the amount of predictive data available to make a reliable risk assessment, as well as insight into the age and size of business. The Viability Rating uses the combined power of D&B's vast U.S. database of information on approximately 30 million businesses including business activity signals, detailed commercial payment experiences that capture month-to-month trends, public filing, demographic, and financial information to classify public and private companies into a 1-9 score scale where 1 is the lowest risk and 9 is the highest. Available on approximately 20M US businesses.
Viability Rating Dimension 1: *Viability Score*	Predictive rating of 1-9 where 1 is the lowest probability of going out of business or becoming inactive over the next 12 months compared to approximately 30M U.S. businesses in D&B's database and 9 is highest probability of going out of business or becoming inactive. Overall, the 2013 projected average 'bad' rate, also referred to as Out of Business rate, is 14%. Each Viability Score 1-9 has a 'bad' rate that can be compared with the average.

Viability Rating Dimension 2: *Portfolio Comparison*	Predictive rating of 1-9 where 1 is the lowest probability of going out of business or becoming inactive over the next 12 months compared to other businesses within the same model segment and 9 is the highest probability of going out of business or becoming inactive. D&B has developed a scoring system that accounts for the correlation between depth of predictive data and future viability. The result is a suite of models consisting of four unique scorecards, with each scorecard driven by depth of predictive data elements such as demographics, commercial trade, and financial data attributes available on a business. Each model was developed and optimized on a more homogenous subpopulation to account for information contained in our database on the business and the difference in bad rates. The four model segments are: • Financial Statement Data Available: Avg. Bad Rate 0.6% • Established Trade Payments (3 or more trades reported): Avg. Bad Rate 5% • Limited Trade Payments (1 or 2 trades reported): Avg. Bad Rate 11% • No Trade Payments (Firmographic and Business Activity Data Only): Avg. Bad Rate 16%
Viability Rating Dimension 3: *Data Depth Indicator*	Provides insights into the level of predictive data elements available on a business. It allows customers to understand and have confidence in the underlying data inputs used to assess viability. Scale ranges from A-G, with A being records with the deepest, predictive data, and G referring to businesses with a level of descriptive data that has limited predictive value. For example, financial data and extensive trade data have a higher predictive index, enabling robust prediction. So, they receive higher points, placing a company higher on the A-G scale. Ratings H-M are special categories that override the A-G rating giving customers further insight when D&B has confirmation that a business has met one of the six risk conditions such as bankruptcy, business deterioration, severe risk and others.
Viability Rating Dimension 4: *Company Profile*	Uses segmentation to define and group businesses that are similar in terms of their size (employees and annual sales), their age (years in business) and the availability of complete financial statements and commercial trade history. Descriptive ratings are categorized as A-X and Y-Z where A is the largest, most established businesses with complete, comprehensive data and X is the smallest, youngest businesses with basic firmographic data only. Y is assigned to a branch location and Z a subsidiary.
World Base Archive	A traditional analytic data set of 55 attributes archived monthly over the last 3 years. Provides point-in-time insight at the DUNS-level on triggers, linkage, sales, year started, employee size, SIC and activity level.
Custom Analytics	**Developed for Client by D&B's Advanced Analytic Services Team or in collaboration with Client's internal analytics team**
Active Account / Behavioral Model	Measures the likelihood of an existing account exhibiting negative payment behavior (i.e. delinquency or write-off) within a specific time period. This model combines a client's account history with external data sources to maximize score performance.
Collections / Recovery Model	Measures the likelihood of recovering dollars from an existing account once it has been placed for collection.
Collections Prioritization Index	Combines a client's customer aging information with D&B's predictive scores to provide an actionable framework to prioritize internal collections based on risk and opportunity.
Credit Limit Analysis	Leverages a client's customer aging information, enhanced with D&B demographic and risk scores, to develop a credit limit matrix that integrates expected credit need with predicted risk.

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Credit Rules Analysis	Profiles a client's customer portfolio by various risk and demographic segments to determine which variables are predictive in identifying the risk of delinquency. This analysis supports a client's development of judgmental scorecards for new or active accounts.
Criteria Analysis	Evaluates a complex set of risk targeting or credit decision rules currently used by the client to quantify the impact of each criteria on client's performance (i.e. delinquency or write-off rate) of those businesses.
Cross-sell / Up-sell Model	Estimates the likelihood that an existing customer will purchase additional products or services.
Customer Analysis	Provides a demographic and risk profile of a client's customer base and highlights segments with the highest and lowest potential, based on revenue contribution.
Customer Retention Model	Estimates the likelihood that an existing customer will remain a customer over a specific time period.
Customer Segmentation	Creates distinct groups of customers that behave in the same way or have similar needs but are different from the overall customer base.
Demand Estimation Model	Predicts a company's potential usage of products or services - either in terms of volume used or the amount of revenue spent.
Lifetime Value / Profitability Model	Measures a customer's likelihood to be profitable or level of profitability within a specific time period based on the client's definition of profitability (which includes both revenue and cost components).
Look-Alike Model	Measures the similarity between a prospect and a client's best customers based on a combination of D&B demographic or risk characteristics.
Location Analytics	A segmentation analysis of all US-based businesses aggregated to the zip code level; Places 33,000 zip codes into 9 Clusters based on various levels of risk and opportunity
Loss Analysis	Provides a demographic and risk profile of a client's customer portfolio, highlighting the segments at highest risk for write-off, and evaluates predictive scores that can be used to improve portfolio performance.
Loss Reserve Model	Measures the likelihood of experiencing a bad debt loss from an existing customer in a specific time period and estimates the dollar value of the loss, if incurred. This model combines a client's account history with external data sources (D&B, SBRI or consumer) to maximize score performance.
Macroeconomic Simulator	A series of models valuable for stress testing portfolios under 9 different economic conditions (best to worst). Model outputs include indices at the state-industry level that can "adjust" the predicted probability of a risk model under a particular macroeconomic situation.
Market Analysis	Leverages D&B's business universe to quantify the size of a prospective market, in terms of the number of businesses, aggregate sales volume, or employment. The client may define their market based on any combination of D&B demographic or risk variables.
Market Penetration Analysis	Measures a client's penetration by comparing the number of existing customers within a client's portfolio to the D&B business universe within specific geographic, industry or size segments.
Marketing Mix Models	Gain an understanding of the ROI associated with various types of channel marketing, their sequence and timing. For example, analyzing the results of a digital ad, followed by direct mail campaign and an outbound telemarketing campaign over a certain time horizon to gauge results of each independent activity or sequence of activities to optimize outreach strategies.

Origination / New Account Model	Measures the likelihood of a new account exhibiting negative payment behavior (i.e. delinquency or write-off) within a specific time period. This model combines external data sources (D&B, SBRI or consumer) and application data to maximize score performance.
Portfolio Benchmarking	Compares a client's customer base or performance against the D&B business universe to highlight strengths or weaknesses within the portfolio.
Prescreen Model	Estimates the likelihood that a prospect will be approved for credit terms by a client's credit/underwriting department.
Response Model	Predicts the likelihood that a prospect will respond to a direct marketing offer.
Retroscore Analysis	Compares a client's customer payment performance against prior period risk scores to determine if a standard or custom score is predictive of delinquency or write-off.
Revenue Potential Model	Estimates the total amount of revenue that a prospect or customer will spend on the defined products or services
Scorecard Validation	Compares a client's customer payment performance against prior period scores to determine if a client's judgmental scorecard is predictive of delinquency or write-off. D&B's predictive scores or other risk variables may also be evaluated.
Share of Wallet Analysis	Leverages standard or custom Demand Estimation Models to compare revenue potential at a customer level with a client's actual customer revenue and identify gaps. Customer-level comparisons can also be aggregated to market level based on a client's geographic, industry or size criteria.
Supply Chain Risk Analytics (Tier N)	Using a Network Discovery logic to identifying the sub-tier suppliers associated with critical suppliers and conducting a comprehensive risk assessment throughout the supply chain to avoid unforeseen distributions cause from downstream risks.
Territory Planning Analysis	Leverages standard or custom demand estimation models to measure aggregate market demand at a geographic or industry level.
Text Analytics	Applying analytical techniques to sorts through unstructured data that contains text to draw meaningful conclusions about business sentiment and behaviors. Common sources include news feeds, blogs, social (twitter, yelp), and customer service complaints. Practical applications include redirecting levels of engagement to reduce churn, upsell, target new prospects - at both the macro and business level
Proprietary Data Assets	**Comprehensive coverage of data sources available for custom analytic collaborative engagements**
Proprietary Data Assets	D&B has created derived, actionable attributes from millions of transactional variables which, as-is, are complex, unstable, unstructured, and extremely challenging to access and integrate into decision-making models. All derived attributes have been tested for predictive-value associated with payment performance, viability, size, and other businesses outcomes; therefore, can serve as solid proxies when actual trade, financial statement, and employee size data is not available. Below is the list of the two primary sources of Propriety Data Assets that would be available as part of a Collaborative Analytic Engagement: D&B Innovations and Third Party Data.

Detailed Trade	Comprehensive 13-month view into normalized open balance payment trends including Month after Month view showing most recent payment performance and Detailed Trade Days Beyond Terms; provides a dollar weighted algorithm driven score that looks at experiences that have been reported to D&B within the past 3 and 12 months. This level of detailed trade goes beyond traditional sources, which provide a summarized rolling average of high credit, now owes, and past due balances. Archive back to 2010 in US and 2012 in Canada.
Inquiry Data	Insight into how many inquiries D&B has received (at a DUNS level); if the inquiry pattern is up, down or steady; the type of industries that are inquiring; the timing of inquiries. These signals have been correlated to the level of business activity within a country and across borders. If that activity is changing; if there is a change in business operations, purchasing habits and/or risk. Inquiry data can also be correlated to size. The higher the number, the larger the company. Archive back to 2009. • Within NA, D&B has information on both the inquiring business and the business they're inquiring upon. D&B receives credit inquiries on approximately 5M businesses yearly within NA. • Cross-Border Inquiry Data – D&B has information on the inquiring country and the characteristics of the business being inquired upon. D&B has received inquiries on 3.6M businesses outside of the U.S. within the last year and 7.2M over the last 3 years.
Intelligent Change Management (ICM) Triggers	Summarization and analysis of the most meaningful changes that have occurred at a site level such as CEO, hierarchy, address, and size. These are actionable triggers driven from the D&B World Base File and augmented with other data files such as M&A, and Global Deletes. Approximately 15% (27M) of the World Base File changes monthly, both organically and changes related to D&B data maintenance. 30% of the 15% (8.1M) are considered 'significant' organic-related changes. Archive back to August 2013.
Business Activity Signals and Proxies for Trade and Financial Data	D&B collects over 35,000 different data sources including 12,000 trade sources. D&B's Intelligence Engine (IE) and Match Audit Process tracks the patterns and velocity of input elements. The percentage of coverage varies country by country. For example, In France, UK, Spain, Italy and Germany, 70%+ of the DUNS will have 1+ signal annually. In Nordics, Scandinavia, Switzerland, Portugal, Brazil, Mexico, Puerto Rico, Australia, Hong Kong, Malaysia, Singapore and Japan, the range is 30%-70%. IE Archive back to January 2010. Match Audit archived back to January 2013.
Global Activity Data	By combining upward and downward linkage, alternative linkage, global trade data, cross-border inquiries, import/export, and social data, D&B can derive attributes that provide a perspective of B2B relationships in terms of supplier-buyer, level of global activity, global presence by region, and global site/family expansion. Archive monthly going back to January 2014.
Contact Attributes	Predictive insights, based on contact metadata and tracking, to improve business targeting performance. Over 200 derived attributes on 6M DUNS providing point in time insights (job functions, org hierarchy, presence on social media, etc.) and change insights (increase/decrease in contacts, functional titles added, etc.). Archive monthly back to April 2015.

Macroeconomic Attributes	Data from public sources including World Bank, IMF, World Economic Forum, and United Nations were explored to create indicators highly correlated with business risks. Examples include Volatility of GDP per capita, Inflation Rates, Industrial Production Index, Real Business Investment, Real Demand, and others. For developing globally consistent risk scores, D&B has tested these indicators against business failures and created statistically-driven approaches to make adjustment to normalize "bad" rates, create derived attributes at the business-entity level, etc.
Purchase/Spend Data (US and Canada)	100M purchase transactions at the buyer level submitted from 1,500 merchants on 10M+ North American businesses including number and dollar amount of purchase, product/service category, IT spend, etc. Archive back to 2012.
Parcel Delivery Data (Canada Only)	420K+ records with the volume of mail and parcels delivered at the site monthly. This data is useful in creating month over month trending variables showing level of activity or inactivity at a business site over the last 24 months. Archive back to 2013
Foot Traffic Data	Collection of 100MM + check-ins and unique visitors from over 10MM retail shops, services, and restaurants across 8 countries. Data is used for Data Quality (Foundational and Location Intelligence & Business Classification) and Analytics (Assess Health of a business, Country Risk Assessment, Business Verification & Resolution).
Web-Based Content	Content pulled from company web-sites. Intent data collected about a web user's content consumption such as websites clicks, article and video viewing, white paper downloads, webinar attendance, on-site search, and participation in online communities. Also, web traffic information such as search-ability, technical competency, outgoing and incoming linkages.
Shipping Data Repository	Multi-sources shipping transactional data on counterparties and intermediaries involved with the transfer and exchange of goods crossing over 160 countries. D&B resolves the identity of counterparties (exporter, importer) on transactions to D-U-N-S Numbers and curates the data to provide a more complete view of US-based global shipping activity. Complete Fact Sheet available.

ABOUT DUN & BRADSTREET

Dun & Bradstreet (NYSE: DNB) grows the most valuable relationships in business. By uncovering truth and meaning from data, we connect our customers with the prospects, suppliers, clients and partners that matter most, and have since 1841. Nearly ninety percent of the Fortune 500, and companies of every size around the world, rely on our data, insights and analytics. For more about Dun & Bradstreet, visit DNB.com. Twitter: @DnBUS