



Axiomatic ThriveScores™:

Corporate Growth Signals from Form 5500 Data

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Key Findings:

- Using corporate growth attributes from Form 5500 filings, Axiomatic ThriveScores™ provide an measure of recent and forward-looking corporate growth.
- ThriveScore™ components gleaned from Form 5500 filings include 1, 2 and 3-year growth rates of employees, active pension participants, total employer contributions, total participant contributions, employer contribution per-employee and participant contribution per-employee.
- Employer contributions to Defined Contribution pension plans have higher weights than participant contributions given the correlation between employer's contributions and financial performance.¹
- Contributions to Defined Benefit pension plans are liabilities calculated as the present value of future benefits that plan participants have accumulated to date² and hence not included in the ThriveScore™ calculations.
- Median ThriveScore for Russell 3000³ companies is 610, while that for the universe of public and private companies is 530.

Introduction:

Axiomatic Data aggregates plan level Form 5500 filings to create a consistent, high quality, point-in-time database of company level benefits information. Form 5500 Filings are a disclosure tool used to satisfy annual reporting requirements by public and private companies in the U.S. for employee benefit plans under ERISA and the Internal Revenue Code. These employee benefit filings cover both pension and welfare plan benefits. This whitepaper explains how ThriveScores™ leverage data from Form 5500 filings to create a new metric that measures recent corporate growth and provides insight into the future growth, given the stage of their corporate lifecycle.

Axiomatic ThriveScore™:

The primary data attributes that go into building ThriveScores™ are 1, 2 and 3 year growth rates of employees, active pension participants, employer and employee contributions, per-participant employer and employee contribution to pension plans. The ThriveScores™ are created for 2015-2020 given that 4 years of data is needed to get 3 years of growth rates. Table1 below shows the specific components of the ThriveScore™:

¹<https://axiomaticdata.com/blogPosts/whitepaper-pension-contributions-and-finance-performance>

²<https://axiomaticdata.com/blogPosts>

³<https://axiomaticdata.com/blogPosts/reconstitution-of-russell-indices-2020>.

Components of ThriveScores™
Growth rate of current employees, 1 yr
Growth rate of current employees, 2 yr
Growth rate of current employees, 3 yr
Growth rate of current employees eligible for pension plan, 1 yr
Growth rate of current employees eligible for pension plan, 2 yr
Growth rate of current employees eligible for pension plan, 3 yr
Growth rate of employer contributions per employee, 1 yr
Growth rate of employer contributions per employee, 2 yr
Growth rate of employer contributions per employee, 3 yr
Growth rate of participant contributions per employee, 1 yr
Growth rate of participant contributions per employee, 2 yr
Growth rate of participant contributions per employee, 3 yr
Growth rate of employer contributions, 1 yr
Growth rate of employer contributions, 2 yr
Growth rate of employer contributions, 3 yr
Growth rate of participant contributions, 1 yr
Growth rate of participant contributions, 2 yr
Growth rate of participant contributions, 3 yr

Table 1: Components of ThriveScore™

Building the ThriveScore™:

- One-year growth rate is weighted higher than two-year or three-year growth rates.
- Employee growth rate and pension plan contribution growth rates are equally weighted.
- Employer contributions to Defined Contribution pension plans have higher weights than participant contributions given the correlation as described in an earlier Axiomatic Data whitepaper (<https://axiomaticdata.com/blogPosts/whitepaper-pension-contributions-and-finance-performance>).
- However, contributions to Defined Benefit pension plans are liabilities calculated as the present value of future benefits that plan participants have accumulated to date and hence not included in the ThriveScores™ as shown in an earlier whitepaper “Covid-19 effect on Defined Benefit plans” (<https://axiomaticdata.com/blogPosts>)⁴.
- Employer contributions per-employee and participant contribution per-employee are given higher weights than gross contributions which are highly correlated with employee counts.
- Since ThriveScores™ are created for the companies currently in Russell 3000 rather than companies ever in the Russell, the score end up being biased upwards.

⁴<https://axiomaticdata.com/blogPosts>

- For companies that file their welfare plans and pension plans separately, we use the available growth rates of the missing plan contributions from previous years. Hence we might observe that in a certain month, although number of employees stay the same the ThriveScores™ change based on welfare plan changes.

Interpretation of ThriveScores™:

- Axiomatic ThriveScores™ can be interpreted as an aggregated growth rate. Companies that are in their infancy stage can have higher growth trajectories. Hence, ThriveScores™ summarizes the growth of companies over the recent years. For example, biotech companies that are in a hyper-growth phase have higher ThriveScores™ (e.g., BIODELIVERY SCIENCES in Table 3 below). On the other hand, Google's ThriveScores™ would be stable over the years as seen in Table 2 below.
- Median ThriveScores™ for the Russell 3000 companies is 610, while that for the universe of public and private companies is 530.
- If the ThriveScores™ is less than 500, it implies negative growth and positive growth if it is more than 500.

Russell ticker	Company name	Current employees count	ThriveScores™
FB	FACEBOOK CLASS A INC	27710	761
AAPL	APPLE INC	89043	660
AMZN	AMAZON COM INC	314072	703
NFLX	NETFLIX INC	5444	684
GOOGL	ALPHABET INC CLASS A	70036	681

Table 2: ThriveScores™, December 2019 for FAANG companies

Russell ticker	Company name	Current employees count	ThriveScores™
RBNC	RELIANT BANCORP INC	250	727
GWW	WW GRAINGER INC	16901	727
YELP	YELP INC	5867	727
SPOT	SPOTIFY TECHNOLOGY SA	1816	727
BDSI	BIODELIVERY SCIENCES	161	727

Table 3: ThriveScores™, December 2019 for companies with a score of 727

Summary

Using growth metrics from Form 5500 filings such as 1-year, 2-year and 3-year growth rates of employees, active pension participants, total employer contributions, total participant contributions, employer contribution per-employee and participant contribution per-employee, Axiomatic ThriveScore™ encapsulates how companies have grown over the years and are currently growing. The ThriveScores™ can be interpreted as an aggregated growth rate. Companies that are in their infancy stage can have higher growth trajectories than companies that have had stable growth of employees and Defined Benefit pension plan contributions.