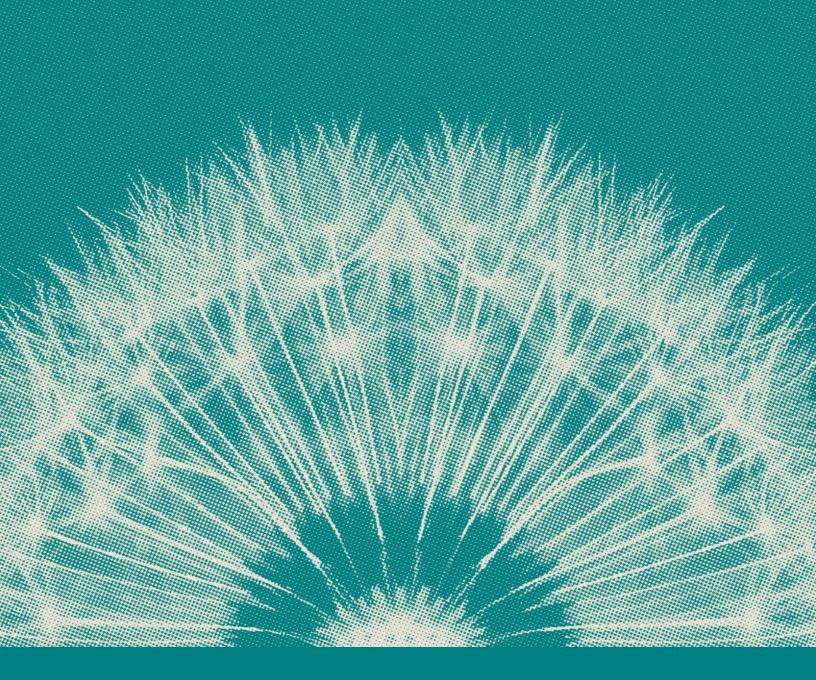
NITROGEN WHITE PAPER

What Really Influences the Risk Number®?

AGE, MARKETS, AND PERSONALITY:





Introduction

You wouldn't greet a new prospect in your office with a welcome like "Hello, middle-aged investor nearing retirement" instead of using their name, so why would any financial advisor try to group their clients into a generic three-tiered investment strategy using antiquated semantics like Conservative, Moderate, and Aggressive based on age?

Investors come to independent advisors for unbiased and personal financial guidance, and while generalizations can steer conversations in the right direction to begin, relying on stereotypes is never a recipe for providing the best advice.

Unfortunately, stereotypes are used commonly throughout the wealth management profession as a way to steer clients into a portfolio that "fits" their stage of life.

Common knowledge routinely says that younger investors are more likely to be comfortable with risk—or at the very least, their advisors put them into riskier portfolios given an expected longer investing timeline.

As an investor's age goes up, the trend indicates that their investment portfolios move down into increasingly conservative investment selections as one way to protect them from volatile market swings.

Tradition and data trends may have shown that this holds true amongst many, but if a client is given a portfolio based on peer stereotypes, the most important part of an advisor's value is glaringly absent: personalized advice.

This holds especially true for a client's risk appetite.

If an advisor generalizes clients into risk bands based on qualifiers like age, they may be right more often than not, but when they're wrong, they're really wrong—and that outcome negates the independent advisor's commitment to being a fiduciary for every client they serve.

As a financial advisor, it's your job to put every client in the best position possible with the information available to you.

In this white paper, we'll offer recent research taken directly from the Nitrogen platform that shows why you can't afford to generalize risk based on age or market trends, and what you can understand about a person based on their Risk Number[®].

Finding #1: Risk is Independent of Age

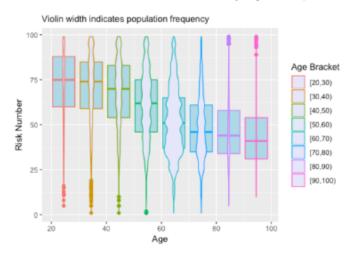
We're always reviewing and studying the data available to us so we can better understand the relationship of risk capacity to an individual investor's age and risk tolerance.

Based on our research, Risk Numbers do tend to cluster into high, medium, and low groups—similar to how you might think of risk in its generic aggressive, moderate, and conservative categories.

However, the data behind the Risk Numbers shows clearly that these clusters are independent of the investor's age in each group.

The majority of investors with advisors using Nitrogen are between 40 and 80 years old, with most investors being in the 60-70 age range. These numbers are in line with what you would expect to see, given that most financial advisors tend to work with clients in or near retirement age.

FIGURE 1. Risk Number Distribution by Age Group¹



What's interesting about the data is that while the conventional buckets of aggressive, moderate, and conservative look to be accurate in a theoretical sense, it's the application of these as a rule for investors based on age where its usefulness falls short.

Those groupings naturally exist across all age brackets, instead of certain age brackets being more or less likely to fall under a classification.

Finding #2: Risk Numbers Hold Steady Over Time

Conventional wisdom might suggest that an investor's Risk Number should become more conservative over time to reflect a shift into a lower-risk portfolio post-retirement.

It's important to consider here is that an individual's risk tolerance is not the only factor at play. Their financial advisor's personal beliefs and perspectives about risk can also play a role, and mainstream thought seems to suggest that advisors think their clients should lower their risk once they retire.

But again, the data shows that an investor's tolerance for risk does not significantly drop as they age.

The average Risk Number by age group is surprisingly steady over time. Over the years, the Risk Numbers for a given age group did not fluctuate significantly as investors aged.

In fact, there is little variation except in the 90-100 age bracket, which actually spikes up—however, the data sample for this age bracket is so small that it may not be statistically reliable.

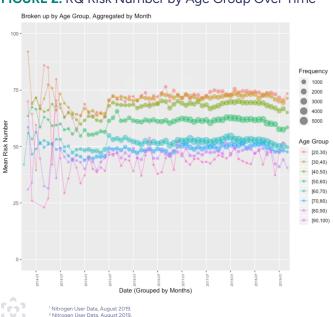
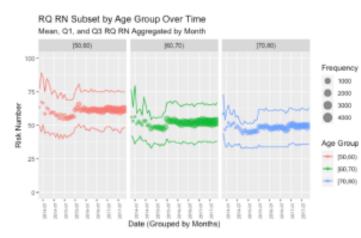


FIGURE 2. RQ Risk Number by Age Group Over Time²

Breaking it down even further, we clearly see that risk over time stays relatively steady in the 50 to 80 age group, which is the core group of investors served through Nitrogen.

FIGURE 3. RN Subset by Age Group Over Time³



And while we're looking at the data in the chart above, here's a worthwhile footnote: The mean Risk Number for 50-60 year-old investors is about the same as third-quartile aggregates for 60 to 80-year-olds, which again reiterates that risk tolerance does not correlate perfectly with age.

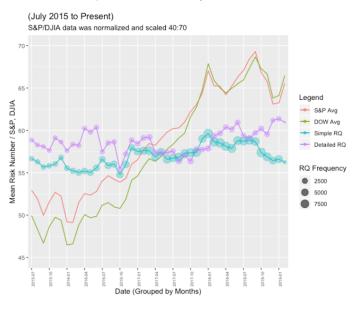
Finding #3: Risk Numbers are Independent of the Market

If risk tolerance can't be said to follow age, then you may expect it to follow the ups and downs of the market, right?

But while there is some correlation to market data, it's not overwhelming.

From July 2015 to December 2016, new Risk Numbers more-or-less followed market patterns, but in December 2016 Risk Numbers dipped and held steady in their general grouping while the markets continued to grow for nine months after that.

FIGURE 4. Simple RQ RN Overlayed with S&P and DJIA⁴



Additionally, it's clearly discernible that after the market peak in January 2018, detailed Risk Questionnaires continued to rise even as the market experienced a brief downturn.

As it was in the first two findings, the data yields clear conclusions.

Risk Numbers are diversified across age groups, and this diversity doesn't really change over time in response to global or market events.

³ Nitrogen User Data, August 2019. ⁴ Nitrogen User Data, August 2019.



Conclusions

So where does all that data leave us? If a Risk Number is independent of age and market movement, it's reasonable to believe that Risk Number is a personality and behavior-based assessment. Behavioral science research has shown that personality is both relatively stable and changeable, but shifts often occur in a positive direction. For example, someone who is more conscientious than others as a teenager also tends to be more conscientious than others when they are elderly.⁵

If you extend this to the Risk Number, a person's personal tolerance for risk may follow a similar trajectory. Someone with a Risk Number 60 at age 30 won't necessarily adjust down to a Risk Number 30 at age 60 simply because they got older—while investing goals may be different, their personality likely hasn't swayed dramatically.

There have been studies conducted specifically about personality and how it affects risk-taking in investing. In one study, individuals deemed more open to new experiences and who could be classified as extroverts were found to be more risk-prone.⁶ Behavioral traits were also found to play an important role in investment risk. Traits such as overconfidence were shown to be good indicators for what an investor's risk profile would look like.⁷

In another study, researchers used the well-known Myers-Briggers personality types to draw a link between behavior and risk tolerance. In short, personality type can explain some of the reasons behind why individuals make certain investment decisions.⁸

When you understand that an investor's risk tolerance is not about their age or what the S&P 500 is doing, but about what they are like as a unique individual, the value of a human financial advisor becomes extremely clear. While a client may personally feel the ability to take on higher risk, the smart behavioral decision for them may be to accept much lower risk in order to protect their assets and goals.

The risk tolerance of a client won't change overnight the day after they retire, but their risk capacity certainly does. Between personal biases and a whole life's worth of behavior, that is difficult for a person to understand on their own without the guiding hand of a professional. An eighty-year-old may have the same fire and personality they had when they were twenty, but in order for them to continue living fearlessly, their portfolio may have to adjust to a slightly less fiery attitude—but that decision is ultimately a human one, aided by a relationship with a financial advisor who understands the science behind a portfolio's associated risk. After all, age is just a number...but the Risk Number is much more.

READY TO JOIN THE FEARLESS INVESTING MOVEMENT?

We'd love to show you how 20,000 advisors are empowering fearless investing with the Risk Number.

Take a Personal Tour

About Nitrogen

Nitrogen revolutionized how financial advisors and wealth management firms grow with the launch of Riskalyze in 2011. Today, Nitrogen is the growth platform for wealth management firms, helping advisors turn leads into meetings, meetings into valued clients, and clients into referral champions. The company invented the Risk Number®, built on top of a Nobel Prize-winning academic framework, and is the champion of the Fearless Investing Movement — tens of thousands of financial advisors committed to our mission of empowering the world to invest fearlessly. To learn more, visit <u>NitrogenWealth.com</u>.

⁵*Does Personality Change or Does It Stay the Same for Life? A New Study Suggests It's A Little of Both.^{*} https://www.forbes.com/sites/daviddisalvo/2018/08/20/can-personality-change-or-does-it-stay-the-same-for-life-a-new-study-says-its-a-little-of-both/#e5ba88779caa. Aug. 20, 2018 *[®] Personality traits and investor profile analysis: A behavioral finance study.^{*} https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0214062. March 27, 2019. *[®] Investment Management and Personality Type.^{*} Financial Services Review. https://docs.google.com/viewer?ut=https%3A%2F%2Fpdfs.semanticscholar.org%2F2c18%2F68a18175c115fa44b9a33811eb0b337c4e39.pdf