

Introduction to Data Driven Investing

What is Data Driven Investing?



Data Driven Investing involves creating and implementing investment strategies that are statistically valid

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It leverages a combination of math, stats, and data to drive investment decisions (e.g., which stocks to invest in)

What is Data Driven Investing?



The idea's to start with a notion; a premise; a *testable hypothesis*.

And then test / validate it statistically.

Why use Data Driven Investing?



Data Driven Investing reduces the need for subjectivity and personal opinions when determining whether an investment strategy has merit

Why use Data Driven Investing?



It removes “guesswork” and can reduce uncertainty by forcing us to focus on what’s in the data, and what holds statistically

Why use Data Driven Investing?



It can create a solid foundation for a
'meritocratic' way of thinking / investing

Goodbye, "It's a good idea because I say so."

Why use Data Driven Investing?



Perhaps most importantly, it helps reduce unnecessary risk when investing

It gives you a much clearer understanding of what exactly is at stake, and whether it's worthwhile

5 Step Data Driven Investing Process



Data Driven Investing involves 5 steps:

1. Develop an investment idea / thesis
2. Create a testable hypothesis
3. Extract & “Clean” relevant data
4. Estimate relevant measures
5. Test / validate the hypothesis

1. Develop an Investment Idea

We start by developing an investment idea / thesis using a combination of sources

(e.g., knowledge, experience, and information available in the research literature, news, forums, etc)

2. Create a Testable Hypothesis

We then formally express the investment idea / thesis into a 'Testable Hypothesis' so we can later test and validate it statistically

3. Extract & “Clean” Relevant Data

We collect or extract relevant data, depending on the hypothesis we're testing

We tend to work with “returns data” in addition to data relating to the investment idea

3. Extract & “Clean” Relevant Data

We then “prep” the data for analysis by
“cleaning” / “processing” it

*Results of even the most sophisticated model
will be useless if the data is useless (“GIGO”)*

4. Estimate Relevant Measures

‘Relevant measures’ vary depending on the core hypothesis being tested

E.g. estimating portfolio returns of firms that display a certain characteristic that our investment idea / thesis focuses on

5. Test / Validate the Hypothesis

Testing and validating the hypothesis can involve something as 'simple' as a t-test, or more formal 'regressions'

Regardless of the statistical tool used, the idea's to validate the hypothesis empirically

Summary



Data Driven Investing involves creating and implementing investment strategies that are statistically valid.

The idea's to start with a testable hypothesis of an investment idea / thesis, and then statistically test / validate that hypothesis.

The “5 Step Data Driven Investing Process” is a broad overview of how one could implement this system.

**Now have a go
at the quiz!**

