

4. Measuring stand-alone risk using realized data

Historical data on realized returns is often used to estimate future results. Analysts across companies use realized stock returns to estimate the risk of a stock. Five years of realized returns for ASA Robotics Inc. are given in the following table. Note that (1) while ASA Robotics was started 40 years ago, its common stock has been publicly traded for the past 35 years, and (2) the returns are calculated as arithmetic returns.

	2006	2007	2008	2009	2010
Stock Return	18.75%	12.75%	22.50%	31.50%	9.75%

What was the average realized return on ASA Robotics Inc.'s stock from 2006 to 2010?

Based on the sample data from 2006 to 2010, what is the standard deviation of ASA Robotics Inc.'s returns?

- ☐ 11.56%
- ☐ 7.66%
- ☐ 8.56%
- ☐ 6.59%

If investors expect the average realized return on ASA Robotics Inc.'s stock from 2006 to 2010 to continue in the future, what will be its coefficient of variation (CV)?

- ☐ 0.38
- ☐ 0.52
- ☐ 0.83
- ☐ 0.45

Suppose you need to invest \$10,000 in ASA Robotics Inc. or another company called Robonomics Inc. You know that Robonomics Inc. has a coefficient of variation of 0.90 and you calculated the coefficient of variation for ASA Robotics Inc. In order to make your investment decision you spend some time in analyzing the situation and drawing conclusions. Based on your conclusions, which of the following statements is true?

- ☐ Robonomics Inc. is two times more risky than ASA Robotics Inc.
- ☐ ASA Robotics Inc. is two times more risky than Robonomics Inc.