## 4. Behavioral example: Skewness of returns

Skew is time dependent, as financial data is not stationary.

## Skew is different for different asset classes:

- bonds have a negative skew (small returns most of the times, defaults some times)
- a stock index has slightly negative skew (volatility is higher in crises and bear markets)
- a set of individual stocks has positive skew

Any given investor might exhibit a preference for a skew profile different than the market he invests in.

That gives rise to possibilities of exchange between players, and therefore, return on risk.

Skew is sensitive to outliers.

## 4. Behavioral example: Skewness of returns



negative skew



positive skew

mean > 0

mean < 0

## Example of 4 types of strategies: randomly generated returns<sup>[2]</sup>

[1] source: Wikipedia, <a href="https://commons.wikimedia.org/wiki/File:Negative\_and\_positive\_skew\_diagrams\_(English).svg">https://commons.wikimedia.org/wiki/File:Negative\_and\_positive\_skew\_diagrams\_(English).svg</a>, This file is licensed under the <a href="https://commons.wikimedia.org/wiki/File:Negative\_and\_positive\_skew\_diagrams\_(English).svg</a>, This file is licensed under the <a href="https://commons.wikimedia.org/wiki/File:Negative\_and\_positive\_skew\_diagrams\_(English).svg</a>,