



## Weekly Educational Topics



### Tobin's Q Ratio

**"THE RATIO WAS POPULARIZED IN 1969 BY THE NOBEL PRIZE WINNING ECONOMIST JAMES TOBIN, AND IS USED TODAY MOST FREQUENTLY BY THOSE PRACTICING VALUE INVESTING."**

**"ALTHOUGH RATHER SIMPLISTIC, TOBIN'S Q RATIO SPEAKS TO AN ELEGANT AND PROFOUND RELATIONSHIP BETWEEN THE CONCEPTS OF PRICE AND VALUE"**

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Akin to most other ratios of its kind, the Q Ratio (also referred to as Kaldor's V) aims to address the foundational question of asset valuation– "what relationship does this asset's market price have with its intrinsic value?", and gives the prospective investor insight into whether companies on the market are overvalued or undervalued. The ratio was popularized in 1969 by the Nobel prize winning economist James Tobin, and is used today most frequently by those practicing value investing.

Use of the ratio was motivated by Tobin's postulation that if prices are appropriately encompassing intrinsic value, the aggregated market value of all companies in a market ought to be equal to the cost necessary to replace their total assets.

In theory, the ratio is calculated as follows; where if  $Q > 1$ , the market value of the equity exceeds its book value (i.e. the asset is overvalued), and visa versa:

$$Q \text{ Ratio} = \frac{\text{Market Value}}{\text{Total Asset Replacement Value}}$$

$$= \frac{(\text{Equity Market Value} + \text{Liability Market Value})}{\text{Total Asset Replacement Value}}$$

When considering the Q Ratio, it is important to distinguish the concepts of replacement value and book value. While book value refers to a more concrete valuation of assets, replacement value considers specifically the hypothetical cost of having to replace these assets. This nuance in how the ratio is determined has made it an alternative to the conventional price-to-book ratio, when circumstances are appropriate.



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With this being said, practically speaking, analysts will frequently equate the above concepts for the sake of simplicity, resulting in the following equation:

$$Q \text{ Ratio} = \frac{\text{Equity Market Value} + \text{Liabilities Market Value}}{\text{Equity Book Value} + \text{Liabilities Book Value}}$$

Although rather simplistic, Tobin's Q Ratio speaks to an elegant and profound relationship between the concepts of price and value, and was born out of deep consideration of what it means to assign value to any object or commodity. Therefore, the Q Ratio delivers clarity when applied to the individual asset or company level, as well as the macroeconomic and global levels, and has been used heavily in analysis of general market health (See further reading).

#### More on this topic:

##### [Q Ratio since 1900, and relevant interpretation:](https://www.advisorperspectives.com/dshort/updates/2020/01/03/the-q-ratio-and-market-valuation-december-update)

<https://www.advisorperspectives.com/dshort/updates/2020/01/03/the-q-ratio-and-market-valuation-december-update>

##### [The Market Valuation Q-uestion:](https://www.advisorperspectives.com/newsletters09/pdfs/The_Market_Valuation_Q-uestion.pdf)

[https://www.advisorperspectives.com/newsletters09/pdfs/The\\_Market\\_Valuation\\_Q-uestion.pdf](https://www.advisorperspectives.com/newsletters09/pdfs/The_Market_Valuation_Q-uestion.pdf)

#### References:

[https://ycharts.com/indicators/tobins\\_q](https://ycharts.com/indicators/tobins_q)

<http://www.smithers.co.uk/faqs.php>