

Problem statement as asked of ChatGPT

I'd like to create a table and/or tables that would allow me to retrieve data from the Wilshire 5000 Total Market Index and recreate the following statement in a more digestible way and then plan out how to recreate and then run this equation regularly in order to monitor the economic / investing landscape:

*What's happening: Widely known as the "Buffett Indicator," it measures the size of the US stock market against the size of the economy by taking the total value of all publicly traded companies (measured using the Wilshire 5000 index) and dividing that by the last quarterly estimate for gross domestic product.*

*The resulting ratio is supposed to tell us how fairly priced stocks are by providing a simple gauge of whether the market is overvalued or undervalued relative to economic output. If the stock market is growing a lot faster than the economy, that could be a sign of a bubble.*

*Buffett's Berkshire Hathaway says that a reading of 100% is fair, if it's closer to 70% stocks are at a bargain price, and if it's anywhere near the 200% mark, investors are "playing with fire."*

*The indicator is currently sitting near a two-year high, at nearly 190%.*

*The last time the indicator was this high was in 2022, when it hit 211% and the S&P 500 dropped by 19% over the next year*

The above notes taken from a CNN article that can be found @  
<https://www.cnn.com/2024/03/27/investing/premarket-stocks-trading/index.html>

Creating a digestible way to monitor the Buffett Indicator, which compares the size of the US stock market to the size of the economy, involves a few key steps. Let's break it down into manageable parts: data collection, table design, calculation, and regular monitoring.

### ### 1. Data Collection

You'll need two primary data points regularly:

- **\*\*Total Value of All Publicly Traded Companies:\*\*** This is traditionally measured by the Wilshire 5000 Total Market Index, which is considered a good proxy for the entire US stock market.
- **\*\*Last Quarterly Estimate for Gross Domestic Product (GDP):\*\*** This data is published by the Bureau of Economic Analysis (BEA) in the United States.

### ### 2. Table Design

To efficiently store and retrieve this data, you can design a simple database with two tables:

#### #### Table 1: Stock Market Value

Column Name	Data Type	Description
Date	Date	The date when the data was recorded.
Wilshire5000	Numeric	Total market value, in trillions.

#### #### Table 2: GDP

Column Name	Data Type	Description
Date	Date	The quarter when the GDP data was released.
GDP	Numeric	Total GDP, in trillions.

### ### 3. Calculation

To calculate the Buffett Indicator:

1. Retrieve the latest values from both tables.
2. Use the formula:  $\frac{\text{Wilshire 5000 Total Market Value}}{\text{GDP}} \times 100$ .

This will give you the Buffett Indicator as a percentage.

### ### 4. Regular Monitoring

To monitor this regularly, you would automate the data collection process:

- **\*\*Stock Market Data (Wilshire 5000):\*\*** Depending on your access, you might be able to automate data retrieval through a financial data API that includes historical values of the Wilshire 5000 index.
- **\*\*GDP Data:\*\*** The BEA provides an API that can be used to automatically retrieve the latest GDP figures.

You could set up a script that runs quarterly, aligning with the release of new GDP data. This script would fetch the latest Wilshire 5000 value, the latest GDP data, perform the calculation, and then store or update a record in a third table designed for Buffett Indicator values:

#### #### Table 3: Buffett Indicator Values

Column Name	Data Type	Description
Date	Date	The date of the calculation.
BuffettIndicator	Numeric	The calculated Buffett Indicator, in percentage.

#### ### Automating and Monitoring

To automate this process, you'd likely use a combination of scheduled scripts (for example, written in Python), financial and economic data APIs, and a database system (like MySQL, PostgreSQL, or even a simpler setup like SQLite for personal use). Ensure you have error handling in place for when data might not be available or when APIs change.

Monitoring the economic and investing landscape through the Buffett Indicator requires regular updates and analysis. After automating the data collection and calculation, you might also set up alerts for when the indicator reaches specific thresholds, such as getting too close to 200%, indicating a potentially overvalued market.