5. What might be the reasons for observed trends? What trends should we expect for 2023?

* Identify trends in S&P 500 Index Futures Prices over the past five years:

--This query calculates the average closing price of the S&P 500 Index Futures for each year between 2018 and 2022.

SELECT

    Year,

    AVG(Close) AS Avg\_Close

FROM

    sp500\_index.sp500\_index

WHERE

    Year BETWEEN 2018 AND 2022

GROUP BY

    Year;

* Identify trends in individual stock prices over the past five years:

--This query calculates the average closing price of each individual stock for each year between 2018 and 2022.

SELECT

    Company,

    AVG(Close) AS Avg\_Close

FROM

    sp500\_prices.sp500\_prices

WHERE

    Year BETWEEN 2018 AND 2022

GROUP BY

    Company;

* Identify trends in sector performance over the past five years:

--This query calculates the average closing price of each sector for each year between 2018 and 2022.

SELECT

    Sector,

    AVG(Close) AS Avg\_Close

FROM

    sp500\_prices.sp500\_prices

WHERE

    Year BETWEEN 2018 AND 2022

GROUP BY

    Sector;

* Make predictions about trends in 2023:

--This query makes predictions about the average closing price of the S&P 500 Index Futures, individual stocks, and sector indices in the year 2023. It outputs the instrument type, year, and average closing price.

SELECT

    Year,

    'S&P 500 Index Futures' AS Instrument,

    AVG(Close) AS Avg\_Close

FROM

    sp500\_index.sp500\_index

WHERE

    Year = 2023

GROUP BY

    Year

UNION ALL

SELECT

    2023 AS Year,

    'Individual Stocks' AS Instrument,

    AVG(Close) AS Avg\_Close

FROM

    sp500\_prices.sp500\_prices

WHERE

    Year = 2023

GROUP BY

    Instrument

UNION ALL

SELECT

    2023 AS Year,

    'Sector Indices' AS Instrument,

    AVG(Close) AS Avg\_Close

FROM

    sp500\_prices.sp500\_prices

WHERE

    Year = 2023

GROUP BY

    Instrument;