Linear regression to anticipate stock movement

Starting with a set of m stocks with histories, we want to be able to predict future movements from linear regression. For each stock, we will note a reference date, future date, and n-1 historical dates. The future date can be as recent as today but all other dates must be in the past. For example if we want to measure the ability to predict the growth of a stock in one year, the future date must be one year before the reference date. We will then choose a set of n dates before reference date that are used at the time of the reference date to predict the value at the future date. We are interested in the growth of the stock, not the absolute value so all values will be scaled by the value at the reference date.

In the terms of linear regression, each stock will give us a y(i) and n X(i)s where the y(i) for each stock is the future value divided by the reference value and the X(i)s are the values at the n historical times divided by the reference values. We form a hypothesis function and then determine the values of that minimizes the cost function